



## **HAPPENINGS AND HIGHLIGHTS.**

### **CASE Italian Dinner**

- June 27 Cloverdale Community Hall 5 PM

### **Social Breakfasts**

- Thursday May 7, June 4, July 2 and August 6 at Pure Casino 9:30 AM

### **Golf**

- Wednesdays at 11 AM Twin Willows Golf Course

### **Walks**

- Friday May 1, 10:30 AM at Hawrelak Park. Contact Wayne Jackson to be notified of future walks.

### **Possible Education Evening**

- Monday May 11. Topic to be announced by email.

### **Essentrics for CASE**

- Lynn Bohuch offers sessions mornings through the week. Contact [essentricsworkoutwithlynn@gmail.com](mailto:essentricsworkoutwithlynn@gmail.com)

## **CASE ITALIAN DINING EXPERIENCE**

There is some exciting news for CASE members...we are expanding our social activities and planning what we are calling, *The Italian Dining Experience*. Below are the details for this event:

- When: Saturday, June 27, 2026
- Where: Cloverdale Community Hall (9411 97 Avenue, Edmonton. T5K 2B6)
- Time: Cocktails from 5 pm to 6 pm, Dinner at 6 pm, Ending 10 pm
- Cost: \$35 per person- Includes buffet dinner and a variety of beverages. We are open to members inviting other guests who might be interested in joining CASE for the sum of \$40 per person.
- What to Bring: Your plate, cutlery and a wine glass (if drinking)
- Where to Pay: [case.deposits@gmail.com](mailto:case.deposits@gmail.com)
- It would be appreciated if Bob Zukerman at [daszuke@gmail.com](mailto:daszuke@gmail.com) was copied when you decide to pay for the event, so that the numbers attending can be calculated and shared with the caterer.
- Also, no event can take place without the help of others. Please indicate if you are available to volunteer and help with this event. Duties will later be assigned. Thanks in advance.

We need an approximate number of those planning to attend by mid May. The cut off number for this event will be around 40, so please do not delay in responding and reserving your spot, to avoid any disappointment. Look forward to a

fun evening of engaging activity, a fabulous meal and prizes. In short, a good time for everyone.

Bob Zukerman CASE Social Director

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## **Cardiac Athletic Society Edmonton - Contacts**

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## ***FIRST AID FOR A HEART ATTACK***

An Alberta man who recently survived a heart attack credited the people who created a special pill holder that helped slow down symptoms with saving his life. Inside the SMHeartCard case were four aspirin on one side to prevent a blood clot, three nitroglycerin pills on the other to expand blood vessels to increase blood flow.

The people behind the SMHeartCard, include James Stewart, who created it with the help of several researchers and doctors at the Edmonton university. Stewart brought the idea to the U of A after starting to work on developing the case in 2018. He runs remote bush camps in the Rockies and, as part of being prepared for emergencies, keeps full first-aid kits on hand. He was finding a challenge in keeping nitroglycerin pills stable. The quest: coming up with material that didn't react with nitroglycerin, which is unstable and loses its potency in reaction to air, light and materials such as plastics and metals. The result was the creation of a special polymer blend for the case.

Stewart, the chief executive officer of SMHeartCard, says it's the first such container made anywhere. "The nitroglycerin pills hold their potency in the card," he said. "I'm proud to say this is the first of its kind in the world."

The pill case is refillable via [SMHeartCard's website](#) or a pharmacy. It also comes with a mobile phone sleeve.

"We wanted to make sure that it was portable and accessible when some of the other products aren't and people aren't carrying them around and they're cumbersome to carry," said Neal Davies, a professor of pharmaceutical sciences at the U of A who helped develop it.

Stewart says his office has taken more than 200 calls from people who credit the SMHeartCard for saving their lives. "I always ask people, 'Can first responders get to wherever you are within 10 minutes?'" he said. "If the answer is 'no,' carry aspirin and carry nitroglycerin to save yourself."

Source: CTV news Craig Ellingson Published: April 08, 2026, at 7:35PM EDT [SMHeartCard credited for saving lives from heart attacks](#)

SOURCE: SM HEART CARD



## ***KETONES AND HEALTH***

Amir Tabatabaei Dakhili and other researchers at the University of Alberta are working to determine how pharmacological or nutritional manipulation of the ketone metabolism could play a role in managing disease. They are examining the evidence to understand how ketone biology — including ketone-based therapies — may shape the management of cardiometabolic diseases including Type 2 diabetes, high blood pressure and coronary artery disease. The good news is that there's a lot of research underway. However, much of it is still inconclusive.

***A part of normal biology*** Most people learn about ketones through the ketogenic diet. It's a high-fat, low-carbohydrate diet that forces the body to burn fat for energy, producing ketones in the process. "What people don't know is that ketones are part of normal biology," explains Tabatabaei Dakhili. "When food intake drops during fasting, exercise and some illnesses, the body shifts and starts producing ketones in the liver, mostly to keep the brain active, but also to fuel other organs."

Ketones are also now understood to be involved in the signalling pathway that can influence inflammation and regulate genes, but most of this research is still not definitive.

Ketones were first discovered in people with uncontrolled Type 1 diabetes, so they were associated with poor health. "Insulin not only regulates glucose but also keeps ketone production in check, so without insulin there is nothing to regulate them," Tabatabaei Dakhili explains. "Ketones make the blood acidic, which is life-threatening."

***Promising studies*** Recently, ketone supplements have been used effectively for reducing seizures in people with drug-resistant epilepsy. Manipulating ketone levels also shows promise in protecting the heart and improving blood sugar for people with Type 2 diabetes.

Tabatabaei Dakhili was a Canadian Institutes of Health Research graduate student under John Ussher, Canada Research Chair in Pharmacotherapy of Energy Metabolism in Obesity, when the team identified a drug that lowered blood sugar in mice by changing the way their muscles burn fuel. By making the muscles rely less on ketones and more on glucose, the treatment helped reduce blood sugar levels. That was back in 2020. Since then, the group has refined the original compound and developed a next-generation version that reduces ketone use in peripheral organs while limiting effects on the brain. The group has since optimized the drug and created a new one that decreases ketone oxidation in peripheral organs rather than in the brain.

Another U of A team under Jason Dyck, a pediatrics professor in the Faculty of Medicine & Dentistry, is working towards a clinical trial using ketone supplements to protect heart muscle for people who take semaglutide in weight-loss products such as Ozempic, Wegovy and Rybelsus.

Yet another field where ketones show clinical promise is heart failure. Tabatabaei Dakhili notes that a growing body of preclinical and early human studies suggests that ketones may help support heart function in some forms of heart failure, although the mechanisms and long-term clinical benefits are still under study.

***A note of caution*** As for improving exercise performance, boosting brain health or reducing inflammation using ketones, Tabatabaei Dakhili says the clinical evidence is still limited or mixed. He points out that ketones are widely available, but they are generally sold as supplements or natural health products rather than as approved drugs for improving exercise performance in the general public. The supplements are expensive

and short-acting, and they may cause side-effects in the stomach that can actually interfere with exercise. Some trials on exercise performance showed promise, but later studies had only mixed results. “Most of the trials were done with trained athletes, so the impact for the average person is unproven,”

Source: U of A Headlines April 20, 2026, By Gillian Rutherford [What science says so far about ketones and health | Folio](#)

### ***UNIVERSITY OF CALGARY LINKS A SPECIFIC GENE TO IRREGULAR HEART BEATS***

Arrhythmia is an irregular heartbeat which occurs when the electrical signals that tell the heart to beat don't work properly. The heart may beat too fast or too slow or the pattern of the heartbeat may be inconsistent. A heart arrhythmia may feel like a fluttering, pounding or racing heartbeat. Some heart arrhythmias are harmless. Others may cause life-threatening symptoms. Research at the University of Calgary, led by Dr. Wayne Chen, has increased our understanding about the role of genetics in serious heart arrhythmias with a groundbreaking discovery.

He found that *enhanced function in a gene* (ITPR1), that is widely associated with movement disorders and seizures, also is linked to cardiac arrhythmias that can lead to sudden cardiac arrest; one of the most devastating cardiac conditions.

“These findings have significant implications for diagnosing, managing and treating cardiac arrhythmias,” says Dr. Chen, PhD, a professor at the Cumming School of Medicine, and principal investigator on the study. The research, published in *Circulation*, reveals how Gain-Of-Function (GOF) mutations in the specific gene disrupt how the heart manages calcium, which is a critical part of keeping the heartbeat steady.

According to Chen, the discovery is an important first step in decreasing the risk of sudden cardiac death for individuals with the defective specific gene.

***The Role of ITPR1 in the Heart:*** Calcium plays a critical role in cellular functions such as muscle contraction and electrical signaling. In the heart, proper calcium regulation is essential for maintaining a regular heartbeat. The ITPR1 gene encodes a calcium release channel found in various tissues, including the brain and the heart's specialized muscle fibers that facilitate the heart's ability to pump blood effectively.

Chen's study reveals that 'Gain of Function' mutations on this gene increase spontaneous calcium release in the cells, triggering arrhythmias under stress conditions, such as during periods of vigorous activity or emotional stress.

The research, conducted in mice, included international collaborators. Together they identified twenty-one gain of function mutations in the specific gene. To assess the potential role of these mutations, the team used data from another international study to identify seven particular mutations that are associated with cardiac arrhythmias in humans.

According to Chen, the discovery is an important first step in helping patients with these gene related cardiac arrhythmias. “Early identification of these genetic mutations could guide personalized treatment strategies, potentially saving lives.” he says. Now clinicians can include this gene in genetic panels for diagnosing unexplained arrhythmias.”

Dr. Robert Rose, PhD, deputy director of the Libin Cardiovascular Institute, says Chen's work has potential to improve patient outcomes. "This work has important implications for personalized or precision medicine in the area of inherited cardiac arrhythmias," he says. "Understanding mechanisms is essential as it can lead to new strategies for treatment as well as for diagnostic screening in arrhythmia patients."

This work was supported by research grants from the Canadian Institutes of Health Research, the Heart and Stroke Foundation of Canada, the National Natural Science Foundation of China, the National Institutes of Health, and the Spanish Ministry of Science Innovation and Universities.

Source: Dawn Smith, Libin Cardiovascular Institute Libin Beat Newsletter January 2026  
UCalgary research links gene to cardiac arrhythmias | News | University of Calgary

***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)

If you wish to unsubscribe from this newsletter, please e-mail [kbclark1@telus.net](mailto:kbclark1@telus.net) with a subject line "unsubscribe".

***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.

# CASE Events Calendar - May 2026

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5 Healthy at Heart BJRCT 11:30 to 12:45	6 Golf Twin Willows 11:00AM	7 Healthy at Heart BJRCT 11:30 to 12:45 <b>Social Breakfast 9:30 AM</b>	8	9
10	11 <b>Possible education evening</b>	12 Healthy at Heart BJRCT 11:30 to 12:45	13 Golf Twin Willows 11:00AM	14 Healthy at Heart BJRCT 11:30 to 12:45	15	16
17	18 Victoria Day	19 Healthy at Heart BJRCT 11:30 to 12:45	20 Golf Twin Willows 11:00AM	21 Healthy at Heart BJRCT 11:30 to 12:45	22	23
24	25 CASE Board Meeting	26 Healthy at Heart BJRCT 11:30 to 12:45	27 Golf Twin Willows 11:00AM	28 Healthy at Heart BJRCT 11:30 to 12:45	29	30
31						

BJRCT = *Booster Juice Recreation Centre in Terwillegar.*

# CASE Events Calendar - June 2026

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 Healthy at Heart BJRCT 11:30 to 12:45	3 Golf Twin Willows 11 AM	4 Healthy at Heart BJRCT 11:30 to 12:45 Social Breakfast 9:30 AM	5	6
7	8	9 Healthy at Heart BJRCT 11:30 to 12:45	10 Golf Twin Willows 11 AM	11 Healthy at Heart BJRCT 11:30 to 12:45	12	13
14	15	16 Healthy at Heart BJRCT 11:30 to 12:45	17 Golf Twin Willows 11 AM	18 Healthy at Heart BJRCT 11:30 to 12:45	19	20
21	22	23 Healthy at Heart BJRCT 11:30 to 12:45	24 Golf Twin Willows 11 AM	25 Healthy at Heart BJRCT 11:30 to 12:45	26	27 CASE Italian Dinner 5:00 PM Cloverdale Hall
28	29	30 Healthy at Heart BJRCT 11:30 to 12:45				

BJRCT = *Booster Juice Recreation Centre in Terwilligar.*

# CASE Events Calendar - July 2026

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Canada Day Holiday Golf Twin Willows 11 AM	2 Healthy at Heart BJRCT 11:30 to 12:45 Social Breakfast 9:30 AM	3	4
5	6	7 Healthy at Heart BJRCT 11:30 to 12:45	8 Golf Twin Willows 11 AM	9 Healthy at Heart BJRCT 11:30 to 12:45	10	11
12	13	14 Healthy at Heart BJRCT 11:30 to 12:45	15 Golf Twin Willows 11 AM	16 Healthy at Heart BJRCT 11:30 to 12:45	17	18
19	20	21 Healthy at Heart BJRCT 11:30 to 12:45	22 Golf Twin Willows 11 AM	23 Healthy at Heart BJRCT 11:30 to 12:45	24	25
26	27	28 Healthy at Heart BJRCT 11:30 to 12:45	29 Golf Twin Willows 11 AM	30	31	

BJRCT = *Booster Juice Recreation Centre in Terwillegar.*

# CASE Events Calendar - August 2026

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3 Civic Holiday	4 Healthy at Heart BJRCT 11:30 to 12:45	5 Golf Twin Willows 11 AM	6 Healthy at Heart BJRCT 11:30 to 12:45 Social Breakfast 9:30 AM	7	8
9	10	11 Healthy at Heart BJRCT 11:30 to 12:45	12 Golf Twin Willows 11 AM	13 Healthy at Heart BJRCT 11:30 to 12:45	14	15
16	17	18 Healthy at Heart BJRCT 11:30 to 12:45	19 Golf Twin Willows 11 AM	20 Healthy at Heart BJRCT 11:30 to 12:45	21	22
23	24	25 Healthy at Heart BJRCT 11:30 to 12:45	26 Golf Twin Willows 11 AM	27 Healthy at Heart BJRCT 11:30 to 12:45	28	29
30	31					

BJRCT = *Booster Juice Recreation Centre in Terwillegar.*