

Eric Zhou receives Canadian Medical Hall of Fame award



Photo: UBC

Mr Eric Zhou has received the 2018 Canadian Medical Hall of Fame award, which recognizes second-year medical stu-

dents with an established track record of community leadership, superior communication skills, and demonstrated interest in advancing knowledge.

Mr Zhou is a data scientist and health innovator committed to empowering patients and personalizing medicine. As an MD/PhD student at the University of British Columbia, he coauthored over 15 original research articles, reviews, and book chapters, and has delivered presentations at leading conferences, including Advances in Genome Biology and Technology and the American Society of Clinical Oncology. He recently defended his PhD, developing computational methods to personalize cancer therapy using whole-genome DNA stability analysis. For his accomplishments he received the Lloyd Skarsgard Research Excellence Award and the Vanier Canada Scholarship. Mr Zhou served as vice chair of the UBC Vancouver Senate and president of the UBC Medical Undergraduate Society (MUS). In this latter role, he oversaw passage of a position paper on national Pharmacare, revamped student representation on Faculty of Medicine committees, overhauled member communication, and supported the launch of the inaugural MUS strategic plan. He now co-leads a Faculty of Medicine working group on disruptive innovation in medical education. In 2015, he co-founded a start-up tailoring evidence-based

medication care plans for patients with complex health needs. Nationally, he advises on the CIHR Strategic Working Group on Health Research Training and served as VP Internal of the Clinician-Investigator Trainee Association of Canada.

Screening tool to identify deceptive online ads

Researchers at the University of British Columbia have devised a simple screening tool (**Figure**) to evaluate if a health product that appears on the Internet is likely to be a scam. The Risk of Deception Tool (<https://news.ubc.ca/wp-content/uploads/2018/09/2018-Health-Scams-Assessment-Tool.jpg>) assigns points based on the type and number of persuasion techniques used in an ad. If the ad includes a celebrity endorsement, it gets one point; if it uses pseudo-technical language,

it gets another point. More points are added if the ad uses mystical language or claims that the product is very rare or in short supply. The higher the overall score, the greater the probability that the ad is a scam.

The system was devised by a team of two nurses, two doctors, two physiotherapists, a pharmacist, and a social worker, all from UBC.

Researchers analyzed advertisements targeting 112 different health concerns. They found that the most common deceptive ads were those promoting bodybuilding and weight loss, followed by medicinal products, which claim to treat pain, asthma, or other conditions, and lifestyle products, which include antiaging or sexual enhancement remedies.

The developers also found a high number of advertisements from alternative health practitioners that

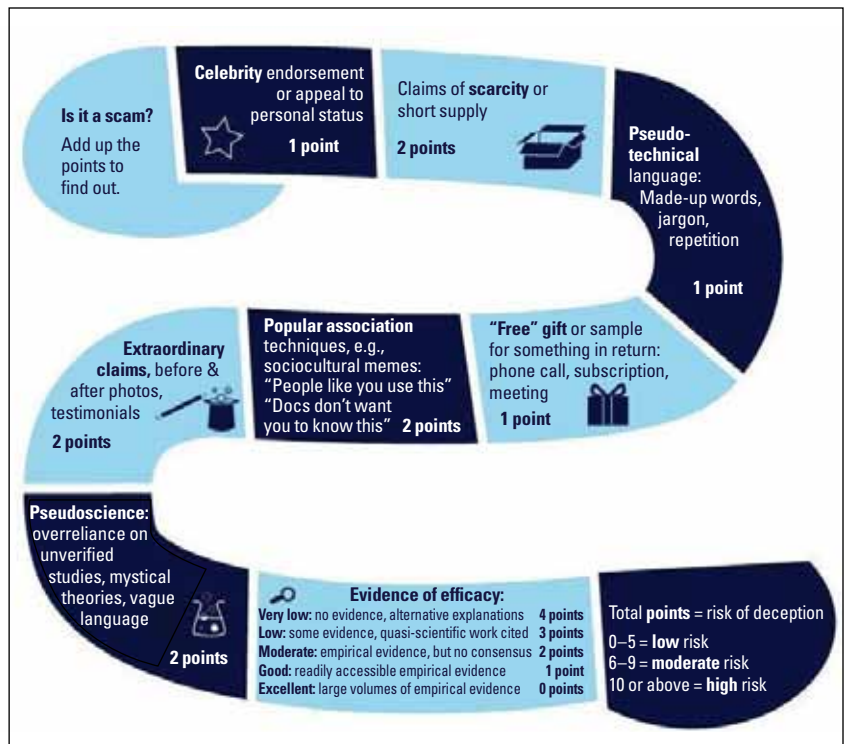


Figure. Screening tool to evaluate the risk of deception of Internet health ads.

Image source: UBC Internet Health Scams Study, 2018.

made claims that were well outside what their therapies could reasonably achieve. Most of the scams identified originated in the United States. Misleading health ads on the Internet are concerning because consumers may end up self-medicating, say researchers.

The study, “Internet health scams—developing a taxonomy and risk-of-deception assessment tool,” was published in *Health and Social Care in the Community*. The lead researcher is Bernie Garrett, an associate professor in the UBC School of Nursing.

New device for post-prostatectomy urinary incontinence

Vancouver-based Pacey MedTech has created a urethral control device that is a reliable solution to urinary incontinence in men—specifically those who have undergone prostate cancer treatment. Urinary incontinence is one of the greatest challenges for men post-prostatectomy. Traditionally, men with incontinence depend on adult diapers/pads, external catheters, leg bags, medication, and penile clamps. These options may be costly, leak, have odor, and produce extreme discomfort. Artificial sphincter surgery is also an option; however, additional surgery is not always possible or wanted by patients with urinary incontinence.

Prostate cancer is the most common cancer in Canadian men, with one in seven facing a diagnosis during his lifetime. The problem of leakage post-radical prostatectomy is widespread. The Prostate Cancer Foundation reports that about 24% of men experience frequent leakage or no bladder control at 6 months after prostatectomy.

The Pacey Cuff stops urinary leakage and reduces the dependency on absorption pads by up to 100%. They are more comfortable than traditional penile clamps as they maintain

consistent and effective blood flow to the penis. The device is designed for compression of the urethra to minimize leakage and also to protect the blood circulation in the topside of the penis, eliminating possible blood supply restriction pain. The cuff was created to be light, soft, and comfortable to ensure men can discretely wear it all day, continue to live a normal life, and engage in regular activities.

The device was created by BC vascular and general surgeon Dr Jack Pacey. More information is available at www.paceycuff.com.

The ultrasound scanner of the future?

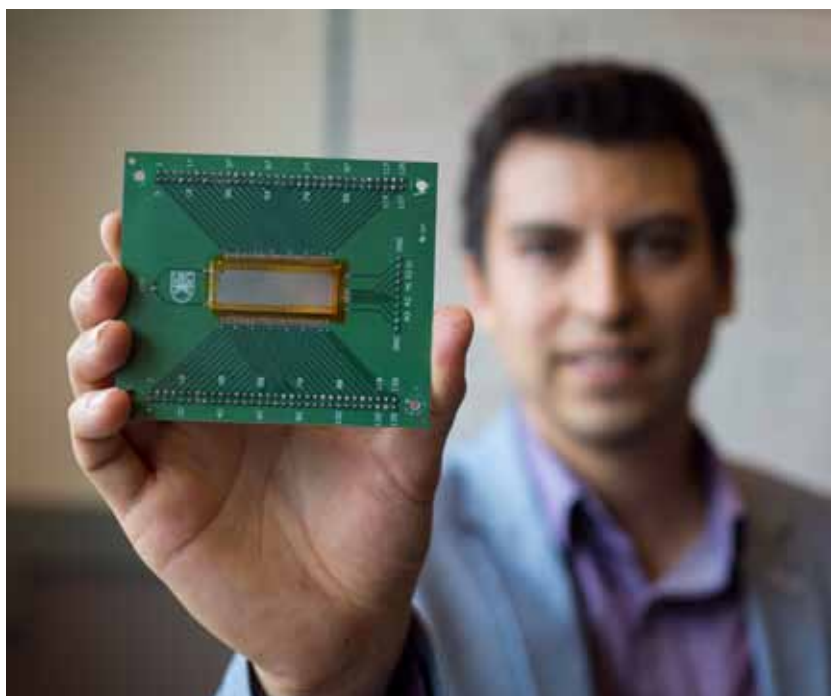
Engineers at the University of British Columbia have developed an ultrasound transducer that could dramatically lower the cost of ultrasound scanners to as little as \$100. The patent-pending innovation is portable, wearable, and can be powered by a smartphone (it needs just 10 volts to operate). The transducer also has the potential to be built into a flexible ma-

terial that can be wrapped around the body for easier scanning and more detailed views.

Conventional ultrasound scanners use piezoelectric crystals to create images of the inside of the body and send them to a computer to create sonograms. UBC researchers replaced the piezoelectric crystals with tiny vibrating drums made of polymer resin, called polyCMUTs (polymer capacitive micro-machined ultrasound transducers), which are cheaper to manufacture. Sonograms produced by the UBC device were as sharp as or even more detailed than traditional sonograms.

Researchers will next be developing prototypes and eventually testing the device in clinical applications. The study’s lead author is Carlos Gerardo, a PhD candidate in electrical and computer engineering at UBC. The research, “Fabrication and testing of polymer-based capacitive micro-machined ultrasound transducers for medical imaging,” was published in

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Study lead author Carlos Gerardo holding the new ultrasound transducer that could revolutionize ultrasounds.

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Microsystems & Nanoengineering.

Revamped mental health and substance use website for young people

The BC Children’s Kelty Mental Health Resource Centre has launched a new website so families and health professionals can more easily find mental health and substance use information and resources to support children and youth.

The website, keltymentalhealth.ca, contains information, tools, and services, including evidence-based supports, created by trusted health experts at BC Children’s Hospital. Kelty also launched a new Instagram account (@keltycentre) to comple-

ment information already provided through Facebook (www.facebook.com/keltymentalhealth) and Twitter (<https://twitter.com/KeltyCentre>), connecting followers to the latest resources and information on mental health and substance use via social media.

In addition to the website, the Kelty Centre offers a variety of services so that children, youth, and families can find the help they need, when they need it, as close to their home communities as possible. This includes peer support services from trained young adults and parents with experience in child and youth mental health, through a collaboration with FamilySmart.



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