

# MEDPULSE

AUTHORS: **AUDREY DONG**<sup>1</sup> & **AISLING ZENG**<sup>2</sup>

<sup>1</sup> Bachelor of Health Sciences (Honours), Class of 2026,  
McMaster University

<sup>2</sup> Bachelor of Health Sciences (Honours), Class of 2024,  
McMaster University

ARTIST: **NATALIE CHU**<sup>3</sup> & **KATIE LIN**<sup>1</sup>

<sup>3</sup> Bachelor of Arts & Science (Honours), Class of 2025,  
McMaster University

## Backlash: Ontario expands private delivery of public healthcare

**CANADA | January 2023**

To address the surgical backlog in Ontario, the provincial government has announced a plan to publicly fund independent, for-profit clinics to perform elective surgeries.<sup>1,2,3</sup> This announcement was met with backlash, with many health organizations voicing concerns that this plan will only divert healthcare providers away from the already critically short-staffed public healthcare system.<sup>1,2,3</sup> Moreover, many organizations, such as the Ontario Nurses' Association and Ontario Council of Hospitals Union, argue that for-profit clinics will increase healthcare expenditure in the long run.<sup>2</sup> A 2021 report revealed that cataract surgery performed in a private clinic would cost \$100-150 more than the public hospital system.<sup>2</sup> Though this plan may increase timely access to procedures, many question the impact on healthcare when shareholders and corporate motivations push to deliver results.<sup>3</sup>



Lycaenidae  
(Canada)



## FDA approves AI software for cardiac ultrasounds

**USA | February 2023**

The Food and Drug Administration recently approved an artificial intelligence program, LVivo IQS, to assist clinicians with interpreting cardiac ultrasounds.<sup>1,2</sup> Designed by DiA Imaging Analysis, this program aims to support cardiologists by providing real-time feedback about the quality of information that can be derived from ultrasound images. This can help guide image acquisition by informing practitioners on when they need to adjust echocardiogram positioning. Obtaining high-quality ultrasound images is important for clinicians to be able to make accurate assessments, ultimately impacting patient outcomes.<sup>2,3</sup>



California Dogface  
(USA)

## AI detectable disease progression of Duchenne muscular dystrophy

**UK | January 2023**

Duchenne muscular dystrophy (DMD) is a genetic disorder causing progressive muscle degeneration, characterized by a deficiency of dystrophin, a protein that helps keep muscle tissue intact.<sup>1</sup> DMD affects 1 in 5,000 live male births, and 20,000 children are diagnosed annually.<sup>1</sup> Recently, researchers have applied machine learning algorithms and behavioral fingerprints to uncover novel biomarkers for DMD progression in patients. AI-detectable DMD has proven to be more effective than conventional clinical assessments.<sup>2</sup>





## Genomic sequencing of the Neanderthal: Nobel Prize Medicine Recipient 2022

### UK | December 2022

The 2022 Nobel Prize in Physiology or Medicine was awarded to Svante Pääbo, a Swedish anthropologist who genomically sequenced the Neanderthal and the newly discovered Denisovan species gene.<sup>1</sup> Pääbo, who is the Director of the Max Planck Institute for Evolutionary Anthropology, is considered one of the founding members of the novel field of paleogenomics —the study of genetic information of extinct species.<sup>2</sup> His discovery aids in understanding human evolutionary history and environmental impacts on varying genetic populations.<sup>2</sup>

## Exploitative formula milk industry recognized by WHO

### GERMANY | February 2023

In a three-paper series published by the World Health Organization (WHO) in The Lancet, officials called for greater regulation of the formula milk industry.<sup>1</sup> Generating \$55 billion USD annually, the industry is recognized for using misconstrued marketing techniques to exploit caregivers and jeopardize the health of infants.<sup>1</sup> Although breastfeeding has been shown to provide extensive health benefits for an infant, fewer than half of infants under 6 months are exclusively breastfed. As a result, many parents turn to formula milk with misleading promises of influencing infant behaviour, such as prolonging night-time sleep and alleviating crying.<sup>2,3</sup> There have been many policies suggested to curb industry misinformation, such as greater support regarding maternity protections for women. The WHO is currently reviewing these suggestions, including implementing paid maternity leave, in which they account for the breastfeeding duration of 6 months.<sup>4</sup>

Danube Clouded Yellow  
(Germany)

Glassy Bluebottle  
(China)

Giant Blue Swallowtail  
(Uganda)

## China ends their “Zero COVID policy”

### CHINA | December 2022

Beginning in 2019 and lasting for three years, China’s “zero-COVID” policy aimed to keep COVID-19 cases as close to zero as possible.<sup>1</sup> This included strategies such as lockdowns, contact tracing apps, frequent mass testing, and quarantine facilities.<sup>1</sup> While initially effective, “zero-COVID” led to food shortages and a declining economy over time.<sup>1</sup> Moreover, as other countries returned to pre-pandemic normalcy, protests against the highly restrictive measures began to arise in China.<sup>2</sup> In December 2022, after much backlash, the government reversed its stringent policy, but many still have concerns.<sup>3</sup> The reopening of the country arrived with no contingencies and no step-by-step plans were established. At the time, many healthcare providers believed that the absence of a gradual reopening plan could lead to massive infection in a short period of time.<sup>3,4</sup>

## Uganda declares Ebola outbreak over

### UGANDA | January 2023

After approximately 164 cases and 55 deaths in nine Ugandan districts, the Ministry of Health (MoH) finally declared an end to the Ebola disease outbreak on January 11, 2023.<sup>1</sup> This was possible because of coordinated efforts between the MoH, the World Health Organization (WHO), and other global response partners.<sup>2</sup> Surveillance field teams were sent to identify cases and follow-up with contacts.<sup>2</sup> Moreover, Ugandan researchers, with the support of the WHO, were able to secure candidate vaccines in a timely manner.<sup>2</sup> In the aftermath, an Ebola Survivors program was established to assess long-term needs and provide psychosocial support.<sup>2</sup>