

A round-up of the eye related hot topics that have been trending on social media over the last few weeks.

### #nativity #needleeye

Happy New Year! Let's kick things off with a holiday-related story. Birmingham-based micro-engraver Graham Short engraved by hand a full nativity scene on a speck of gold, housed inside a needle eye. This was on display at St Laurence Church, Northfield in Birmingham. He said that he engraves between heartbeats. So, for him to create such miniscule engravings, he uses a medical microscope, takes drugs to lower his heart rate, and has botulinum toxin-style injections to his periocular muscles to reduce distractions. Head over to the link in the references to see a photo of this incredible engraving, complete with a star of Bethlehem! [1].

### #foggyglasses #coldweather #solution

The Christmas holidays come with winter weather, and for those who wear glasses, it brings an annoying problem of glasses fogging up when coming in from the cold. This is exacerbated by mask wearing. Scientists from ETH Zurich led by Professors Dimos Poulikakos and Thomas Schutzius have developed a permanent solution for this. This is a transparent gold nanocoating that selectively uses the infrared energy from sunlight to heat up glasses, thus preventing them from fogging. Because the coating minimally absorbs the energy from the visible light spectrum, the coating remains transparent. As it uses the energy from the sun, no extra energy source is required for this to work. This is a completely novel approach to anti-fogging, as conventional methods use hydrophilic molecules to evenly spread condensation [2].

### #ToniCrews #firstTVcadaver #TVrealdissection #MyDeadBody

Toni Crews, a mother of two who died of a lacrimal gland cancer in 2020 at the age of 30, is the first named donor to undergo an autopsy on TV. This was aired in the Channel 4 documentary 'My Dead Body'. Crews also consented to be on display for 200 years, making her the first British cadaver to be dissected and displayed in such a public way. Crews was diagnosed with cancer of the lacrimal gland in 2016, a rare form of the disease which led to her eye being removed, cited as being a rare, one-in-a-million cancer. This documentary, due to the generous donation Crew has made, is set to invite thousands of students, including nurses, paramedics, and

neuroscientists, to learn about this rare form of cancer [3].

### #AshtonKutcher #vasculitis

Hollywood star and one of *TIME* magazine's "Top 100 Most Influential People", Ashton Kutcher suffered from a rare vasculitis that "knocked him out". It reportedly took him a year to recover from the autoimmune disorder, which compromised his ability to see, hear, and walk. He has not disclosed the specific disease, but the eagle-eyed will have their guesses. He was quoted saying that it "knocked out my vision. It knocked out my hearing and all my equilibrium" [4]. His illness also transformed his perspective, explaining how this taught him to surface on top of his problems, rather than hiding beneath them [5].

### #gunsroses #blackeye

Guns N' Roses' Axl Rose will no longer perform his final act of throwing his microphone to the fans. This was agreed upon after a fan at the Adelaide concert was seriously hurt and suffered two black eyes along with cuts to her nose. "Regardless, in the interest of public safety from now on we'll refrain from tossing the mic' or anything to fans during, or at, our performances," Rose said. This, I'm sure, was welcomed by the fan who believed the act could have killed her "if my head was turned and it hit me in the temple" [6].

### #glaucomatreatment #newdiscovery

Glaucoma is a common eye condition where the optic nerve, which connects the eye to the brain, becomes damaged. Treatment for glaucoma includes eye drops, laser, or surgery. However, researchers such as Pete Williams are discovering ways to prevent retinal ganglion cell death. His team found that people with glaucoma show a progressive loss and dysfunction of mitochondria in the eye. To generate energy, mitochondria need nicotinamide adenine dinucleotide (NAD). The study is testing the effects of supplementing Vitamin B3, which nerve cells use to produce NAD, to patients. Initial results are promising, and the trial is planned to continue for a further two years [7].

### #robberfails #blindpersonattack

Sean Dilley, a blind BBC reporter, had his phone stolen from him during his break on a night shift. The assailant was riding a bike when he seized the opportunity. Dilley believes he was targeted because of his visual impairment. Dilley sustained cuts and injuries whilst restraining the attacker,

retrieved his phone and used the voice assist feature to ring the police. To their surprise, the assailant was still detained by Dilley when the police arrived! [8].

### #blinddog #therapydog #NHSheroes

Sumi was a 12-year-old Japanese Akita, who lost her vision from a condition called Uveo-Dermatologic Syndrome. Her vision problems started in 2016. Her doctor, David Habin at Paragon Veterinary Referrals, tried to find ways to treat her regressing eye health, but unfortunately the disease progressed, and she became blind in both eyes by 2019. Despite this, Sumi had continued her work as an NHS therapy dog, in care homes, local hospitals and brain injury units [9,10].

#### References

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8. <https://www.bbc.co.uk/news/uk-64100975>
9. <https://www.mirror.co.uk/news/uk-news/dedicated-blind-therapy-dog-saved-28599001>
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[All links last accessed January 2023].

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