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Weekly News Bites: Rainbow fish, mice with antlers, and a grape-sized heart

Asia Research News monitors the latest research news in Asia. Some highlights that caught our attention this week are a fish that is both transparent and multicolored, making mice grow antlers, and surgery on a very small heart.



How can a see-through fish also have the colors of a rainbow? Shanghai Jiao Tong University researchers, fascinated by the appearance of the ghost catfish, found that instead of scales that reflect the light, the fish have small structures inside their muscles that bend light into a rainbow. As the fish swims, the muscles move causing the rainbow light to “shimmer”.

Animals that have antlers, such as deer, can regenerate these structures once they fall off. Could this capability also be harnessed by humans? Northwestern Polytechnical University is researching a way to use these fast regeneration capabilities, starting with growing antlers on mice. Implanting stem cells from antlers into the mice caused them to sprout antler-like protrusions on their heads.

Putting solar panels on water reservoirs can generate huge amounts of energy, annually even more than the entire EU, and can help stop water loss from evaporation. An international team including Southern University of Science and Technology China, Mae Jo University Thailand, and University of California, Santa Cruz USA, performed this study in “float-ovoltics”.

Alzheimer’s disease features dangerous protein plaques that build up in the brain. Researchers from Nanyang Technological University have discovered how the immune cells in the brain use different methods to produce energy to clear this “toxic waste”. The cells use 2 methods: through a translator protein or a less efficient enzyme. The scientists are looking into how to avoid the cells using the enzyme and switch back to the translator protein.

As policies for mandatory facemasks are being phased out, some people still opt to wear them anyway. A survey by the University of Tokyo and Hitotsubashi University found that in Japan, people

will continue to wear masks due to social pressure rather than government policy. The respondents said that the percentage of people wearing masks around them and the level of infection in their neighborhood influences their decisions to wear them or not.

All India Institute of Medical Sciences (AIIMS) surgeons performed a 90-second procedure on the heart of a fetus still inside the womb. An internal valve was obstructed, needing a balloon dilation to help the heart continue developing. The little organ is the size of a grape, calling for extreme care and dexterity during the surgery.

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