How do bats live with so many viruses

If previous outbreaks of coronavirus are any indication, the Wuhan strain that is now spreading may eventually be traced back to bats.

One bat can host many different viruses without getting sick.

In a 2018 paper in Cell Host and ***Microbe***, scientists in China and Singapore reported their investigation of how bats handle something called DNA sensing.

microbe　细菌；微生物

The energy demands of flight are so great that cells in the body break down and release bits of DNA that are then floating around where they shouldn't be. Mammals, including bats, have ways to identify and respond to such bits of DNA, which might indicate an invasion of a disease-causing organism. But in bats, they found, evolution has weakened that system, which would normally cause ***inflammation*** as it fought the viruses.

inflammation　炎症；燃烧

Bats have lost some genes involved in that response, which makes sense because the inflammation itself can be very damaging to the body. They have a weakened response, but it is still there. Thus, the researchers write, this weakened response may allow them to maintain a "balanced state of 'effective response' but not 'over response' against viruses."

Scientists in China were already studying the bats carefully, well aware that an outbreak like the current one would most likely happen.

Dr. Peter Daszak, president of EcoHealth Alliance, who has been working in China for 15 years studying diseases that jump from animals to people, stressed that stopping the sale of wildlife in markets is essential to curtail future outbreaks. But monitoring and studying wildlife, like bats, is equally important.