

## **Researching bats provides significant value for scientific discovery**

---

*Research into bats and their special abilities to not get sick from many viruses could hold the key to the next breakthrough vaccine or treatment.*

Studying disease transmission from animals to humans increases our understanding and ability to predict and prevent zoonotic spillover events.

- Experts estimate that 75% of all emerging human infectious diseases originate in animal populations.
- Every living lifeform has been shown to host viruses, and bats are no exception.

The virology, immunology, and ecology of bats is of crucial importance to developing strategies to inform conservation and global human health outcomes.

- Researches can investigate original chains of transmission during spillover events by looking into the relationship between humans and wildlife populations, including bats.<sup>1</sup>
- Tracing a virus enables scientists to develop tactics to reduce contact with viral infections in the future.<sup>2</sup>
- Research on bats contributes to recommendations developed by epidemiologists and public health officials to reduce and predict future infectious diseases to protect people.

Bats have a special ability to tolerate viruses, including those closely related to the one causing COVID-19 (SARS-CoV-2).

- Bats carry many viruses, but bats don't experience symptoms or illness in the same way that humans and some other infected mammals do.<sup>3</sup>
- Scientific research on the tolerance bats exhibit to this virus may help to develop new vaccines or treatments.

Studying bat immunology can help us understand our own immune systems and ways to fight diseases.

- Bats have special biological tools that stops the progression of a virus, and they can tolerate much higher levels of infection than other mammals.<sup>4</sup>
- Bats were among the earliest mammalian species to evolve and that help may explain why certain viruses can infect seemingly healthy bats while remaining highly pathogenic for humans.<sup>5</sup>

***Bat conservation is part of the solution. When we protect bats, we stay safer, too.***

**Sources:**

<sup>1</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1539106/>

<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1539106/>

<sup>3</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4012789/>

<sup>4</sup> <https://elifesciences.org/articles/48401>

<sup>5</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1539106/>