One BAT

One health approach to understand, predict and prevent viral emergencies from bats

Project

The OneBAT project aims to safeguard public health by studying viruses in European bats. Instead of just focusing on the viruses, the project looks at all steps leading to their transmission to humans. This "One World One Health" approach aligns with global efforts to be prepared for health emergencies.

With limited resources for disease research, OneBAT prioritizes three high-risk viruses, specifically coronaviruses, filoviruses and lyssaviruses, associated with a specific bat species in Europe, the endangered *Miniopterus schreibersii*.

OneBAT not only targets specific viruses but also prepares for unknown threats (Disease X) that could cause international epidemics. By studying viral families with different characteristics, the project aims to understand and predict how these viruses might emerge and spread.

The *Miniopterus schreibersii*

The Schreibers' long-fingered bat *Miniopterus schreibersii* (Kuhl, 1819), is a medium-sized winged marvel with a wingspan ranging from 24 to 30 centimeters.

From Portugal to the Caucasus, and recently spotted in Poland, this bat is at the forefront of our OneBAT project, unveiling insights into its ecological importance and potential public health implications.

In this context, it is crucial to asses the specific potential of the viruses found in our target bat, that is now still mostly unknown, to infect, cause disease and spread among humans.

Objectives

The primary objective of OneBAT is to investigate the trigger for viral spillover from European bats to humans or domestic animals, focusing on the bat Miniopterus schreibersii and high-consequence viruses (filoviruses, coronaviruses, lyssaviruses).

Impacts

Reducing the Impact of Emerging Diseases

By studying viruses in European bats, we aim to spot potential threats early, helping us manage and control situations where diseases might jump from bats to humans or other animals.

Improving Health Outcomes

The project seeks to decrease the negative health impact of specific viruses (lyssaviruses, filoviruses and coronaviruses) by developing tools for early detection, prevention, and treatment.

Strengthening Global Health

By enhancing the know-how and diagnostic capabilities, the project aims to have more countries collaborating with eachothers to combat infectious diseases on a global scale.

Protecting Resources for Other Health

Unexpected infectious diseases can strain healthcare resources. OneBAT project aims to prevent this strain, ensuring resources are available for addressing other health issues like HIV, malaria, and tuberculosis.

Empowering People to Make Informed

Increase awareness about infectious diseases associated with bats. Training specific groups, such as bat enthusiasts, will help people avoid behaviors that could lead to disease transmission. Moreover, OneBAT intends to share information about bats, promoting coexistence while respecting and preserving these animals.

Partners

Project details

Contacts

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