Sunny news from the sunny side of the Alps: active surveillance for lyssaviruses in bats did not reveal the presence of EBLV in Slovenia

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AIMS (VETERINARY ADMINISTRATION OF THE REPUBLIC OF SLOVENIA)
In Slovenia till 2008 almost no testing for the presence of lyssaviruses in bats had been performed. Following the increased knowledge of the presence of European Bat Lyssaviruses in some Europe bat populations, a question arose regarding the status of EBLV in our country. Therefore it was commissioned a two-year active surveillance study focussing on the
• Eptesicus serotinus and Myotis daubentonii species known to be reservoirs of EBLV, and
• species which roost in buildings and therefore have a potentially higher risk of coming into contact with humans.

ACTIVE AND PASSIVE SAMPLING (CENTRE FOR CARTOGRAPHY OF FAUNA AND FLORA)
Sampling of bat saliva and blood was done during the summers of 2008 and 2009. Bats were sampled from approximately 30 roosts and almost 40 mistnetting sessions in foraging habitats or in front of supposed roosts across all Slovenia. We collected more than 490 saliva samples and approximately 440 blood samples (blood was not extracted from pregnant females and weaker specimens). During project more than 50 bat cadavers in different state from fresh to mummies were obtained and brain samples or swabs of cranial cavity were taken.

LABORATORY ANALYSIS (INSTITUTE OF MICROBIOLOGY AND PARASITOLOGY)
Saliva and brain samples were tested by RT-PCR test. Total viral RNA was extracted from samples using QIAamp® Viral RNA Mini Kit (Qiagen, Germany). Extracted RNA was stored at -70 °C until analysis. Reverse transcription (RT) with polymerase chain reaction (PCR) was performed in one tube (One-Step RT-PCR Kit, Qiagen, Germany) with primer set N1161P and N1579M to amplify 419 bp PCR product of the nucleo-phosphoprotein (N-P) gene segment. Sera samples were pooled (3-5 samples per pool) and antibodies against Lyssavirus were detected by FAVN test.

RESULTS & CONCLUSIONS
• Analyses for EBLV were all negative.
• To date there is no confirmed EBLV presence in Slovenia.
• We can conclude that for the present, bats in Slovenia do not pose a significant public health risk.

RECOMMENDATIONS
• To start a building bigger net of field assistant for passive surveillance,
• to start raising the understanding of the real and potential risks involved in handling bats, focussing on medical doctors, veterinarians, biologists and bat volunteers,
• to start a new active surveillance in the case of an increase in EBLV reports in neighbouring countries and central Europe.

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