

Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE  
FACULTY OF VETERINARY MEDICINE - SKOPJE



# BOOK OF ABSTRACTS

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R. of North Macedonia

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**ANTIMICROBIAL RESISTANCE IN STAPHYLOCOCCI ISOLATED FROM DOGS IN THE REPUBLIC OF NORTH MACEDONIA**

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The emergence and global spread of antimicrobial resistance (AMR) is a cause of great concern being one of the important threats to animal and public health worldwide. Companion animals have been shown to have the potential to act as reservoirs for resistant bacteria for humans due to their close contact in the living and/or working environment. The aim of this work is focused on presenting the results of antimicrobial resistance in staphylococci isolated from dogs in the Republic of North Macedonia. Following isolation, species identification was performed by PCR. Antimicrobial susceptibility of the isolates was performed by disk diffusion method and the detection of methicillin resistance by disk diffusion and molecular detection of the *mecA* gene. Forty two (42) isolates were identified as *Staphylococcus pseudintermedius*, out of which 14 (33.33%) were identified as methicillin resistant *Staphylococcus pseudintermedius* (MRSP). Ten isolates were identified as *Staphylococcus aureus*, out of which 2 (20%) were identified as methicillin resistant *Staphylococcus aureus* (MRSA). Overall, 78,84% (41/52) of the staphylococcal isolates were resistant to more than three antimicrobial classes and classified as multidrug resistant (MDR) staphylococci.

**Key words:** *Staphylococcus*, antimicrobial resistance, multidrug resistant bacteria, dogs