



Česká zemědělská univerzita v Praze

Fakulta agrobiologie,  
potravinových a přírodních zdrojů

DOKTORSKÝ STUDIJNÍ PROGRAM

## NÁVRH TÉMATU/PROPOSAL OF THEME

Studijní program/*Study Program*: **Animal Science**

Katedra/*Department of*: **Microbiology, Nutrition and Dietetics**

Školitel (včetně titulů), email/*Supervisor*, email: Prof. MVDr. Eva Skřivanová, Ph.D.

Konzultant (včetně titulů)/*Co-supervisor*: Dr. Martina Slaninová Kyselková

Forma studia/*Form of Study*: **Full\_time**

Typ tématu/*Type of Theme*: **Framework**

**Téma/Theme: Adaptation of *Acinetobacter* spp. to antibiotic use in cattle**

**Hypotéza/Hypothesis:** (i) Antibiotic use in cattle increases the occurrence of antibiotic-resistant *Acinetobacter* spp. in cattle excrements, manure and manured soils. (ii) *Acinetobacter* spp. show genetic adaptations to antibiotic use in cattle.

**Anotace/Annotation:** anotace česky:

*Acinetobacter* is a diverse bacterial genus adapting to various types of environments including water, soil, animal and human bodies. Notably, *Acinetobacter baumannii* includes important opportunistic pathogens that can be resistant to all medically relevant antibiotics. Manure from antibiotic-treated livestock is an important source of antibiotic-resistant bacteria, which are released to soil via manuring and may further spread in the environment. This project addresses the question whether antibiotic use on farms is a factor increasing the occurrence of antibiotic-resistant and potentially pathogenic *Acinetobacter* spp. in cattle waste and what are the adaptations of *Acinetobacter* spp. to a frequent antibiotic use in farms.

**Zdroj financování/Source of:** GAČR 22-05373S, *Kravske exkrementy a hnůj jako rezervoár acinetobakterů představujících riziko pro lidské zdraví, 2022-2024.*

Datum/*Date*: 27.1.2021

Podpis/*Signature*: