LITHUANIAN UNIVERSITY OF HEALTH SCIENCES

International **Summer School** Practice

Genetic testing for dogs and cats

The study of genetic diseases in dogs and cats is an important area of veterinary medicine and animal genetics. Hereditary diseases can significantly affect the health, welfare, and quality of life of companion animals. Genetic testing allows the identification of mutations responsible for inherited diseases and helps to better understand their transmission between generations.

This research topic provides an opportunity to learn how to isolate DNA from various types of biological material, such as blood, saliva or hair roots. Student will gain practical experience in DNA extraction and preparation for further genetic analysis. The research will also provide an opportunity to study specific genetic mutations associated with hereditary diseases in dogs and cats. Understanding these mutations can contribute to earlier identification of animals at risk of developing genetic disorders.

Genetic testing can also be useful in responsible breeding by helping to reduce the transmission of inherited diseases to future generations. The practical knowledge gained during this research can be applied in veterinary diagnostics, animal breeding, and genetic research. Therefore, investigating hereditary diseases and the genetic mutations associated with them is relevant for improving animal health and promoting more responsible breeding practices.