



DOKTORSKÝ STUDIJNÍ PROGRAM/*DOCTORAL STUDY PROGRAM*

**VYPSÁNÍ TÉMATU/*LISTING OF TOPIC***

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

Studijní obor/*Branch of Study*: **program without field**

Katedra/*Department of*: **Veterinary Sciences**

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

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

**Téma/Topic**: Novel approaches to predict and improve sperm function during semen storage.

**Hypotézy/Hypotheses**: The reduction of oxidative stress and microbial contamination during semen storage may increase sperm lifespan and fertility.

**Anotace/Summary**: In spite of the advances reached during the last decades, reduced sperm survival during semen storage still represents a common and almost unavoidable side effect of handling and preservation procedures of the male gamete. Besides genetics and individual traits, oxidative stress and bacterial contamination are major factors involved in the decline of sperm quality during storage. The use of new antioxidant and antimicrobial substances might be useful for treating male fertility disorders and improving the outcomes of assisted reproductive technologies.

The present thesis aims to a) identify the factors that may predict sperm tolerance to storage procedures; ii) evaluate the effects of antioxidant and antimicrobial compounds on sperm function during sperm refrigeration and cryopreservation.

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V/In Prague

dne/Date: 25.10.2022

Podpis/Signature: *Eliana Pintus*