



Confidential

Supervisor's Review of USB RIFCH PhD Thesis

Surname of the PhD student: Gazo	Name of supervisor: Jacky Cosson, Ph.D., Dr.h.c.
Title of PhD thesis: The role of reactive oxygen species and protein phosphorylation in fish spermatozoa	

OVERALL COMMENTARY ON THE PhD THESIS

levgeniia Gazo has been a PhD student at Laboratory of Molecular, Cellular and Quantitative Genetics since 2011. At first, I confess that it has been a pleasure for me to supervise the PhD thesis of levgeniia, and this for several reasons. One is that, when levgeniia came to me three years ago, explaining me that she was in a quite embarrassing situation due to the demise of Martin Hulak, her former supervisor, I immediately understood her enthusiasm to pursue her PhD. I proposed to be her new supervisor, provided she would readjust her fields of investigation to topic better overlapping my own fields of competence. Arriving now to the completion step of her PhD, no need to say that this shared bet was the good one. A second reason why being her PhD supervisor has been real pleasure for me is that my task has been greatly relieved thanks to levgeniia's tendency to take initiatives, mostly the good ones, a good sign of independence. Not to mention, her tenacity associated with experimental skills, finding expression through her enviable facility in manuscript writing lead, with no doubt, to a sum of qualities that predictably allows her to pursue her carrier as an excellent researcher. Her interaction with other colleagues as well as the success of her abroad stays in Japan or France confirms her sociability allied with her enjoyment to cooperate.

Her thesis document gathers an impressive bunch of original results comprised by three publications and one manuscript dealing with toxicity of xenobiotics and reactive oxygen species (ROS) for fish spermatozoa, as well as role of protein phosphorylation in fish sperm motility. The study was performed mainly on two highly profitable aquaculture species, common carp (*Cyprinus carpio* L.) and sterlet (*Acipenser ruthenus*). Results, obtained by levgeniia, indicate a great susceptibility of sterlet spermatozoa to the presence of xenobiotics in environment and propose the use of fish spermatozoa for detection of toxic effects of water pollutants (Chapter 2). Further studies of levgeniia consider the role of ROS in spermatozoa of freshwater teleost specie (common carp). Results of this study have been published in two papers (Chapter 3-4). Furthermore, an additional study was performed in order to show the role of protein phosphorylation in fish sperm motility activation, energy metabolism and intracellular signaling (Chapter 5).

In summary, the thesis of levgeniia Gazo, MSc is logically well organized and containing basic results, which have potential for further investigation and application. I warmly recommend this thesis for defence.

FINAL RECOMMENDATION

- can be recommended for defence of PhD Thesis
 can be recommended with reservations for defence of PhD Thesis
 can not be recommended for defence of PhD Thesis

29.04.2015 Vodňany
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Date and place

Cosson
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surname and signature