Fakulta rybářství
a ochrany vod
Faculty of Fisheries
and Protection
of Waters

Jihočeská univerzita
v Českých Budějovicích
University of South Bohemia
in České Budějovice
Czech Republic

Confidential

Supervisor´s Review of USB RIFCH PhD Thesis

Surname of the PhD student: Kseniia Pocherniaieva, MSc.	Name of supervisor: Ing. Vojtěch Kašpar, Ph.D.
Title of PhD thesis: The foundation of maternal factors in sturgeon: from oocyte to embryo	

OVERALL COMMENTARY ON THE PhD THESIS

Ksenia Pocherniaieva entered Faculty of Fisheries and Protection of Waters and Laboratory of germ cells as a PhD student in 2012 having diploma from Faculty of Radiophysics, Department of Biological and Medicinal Physics and having short experience as laboratory technician in two different laboratories.

Original aim of her involvement to research team of laboratory was to adapt single cell PCR for application in our research activities. She actively started to learn the basic methods required for work with fish gametes or transplantation techniques and she started to work actively with rest of the team in Laboratory of germ cells and Laboratory of molecular, cellular and quantitative genetics.

From the beginning she was involved in wide range of activities and she cooperated with partners from other laboratories in Czech Republic or abroad. Ksenia actively cooperated with Monika Šídová, Ph.D and Radek Šindelka, Ph.D from Laboratory of Gene Expression, Institute of Biotechnology of Academy of Sciences of the Czech Republic.

Her work resulted in two papers published in a position of first author and four papers published as co-author.

In first paper published in Journal of Experimental Zoology B – Molecular and Developmental Evolution she published study applying PCR tomography with panel of 12 reporter genes where she localized maternal mRNA in structure of sturgeon oocyte and she demonstrated similar localization of germplasm determinants in sturgeon embryo and embryos of anurans.

In second paper published in Turkish Journal of Fisheries Science Ksenia studied MBT in sterlet and sterlet x Russian sturgeon hybrid and identified MZT period of sterlet and hybrid embryos by α-amanitin treatment of embryos.

During PhD study Ksenia visited several laboratories abroad. She visited Laboratory of Aquaculture Genetics and Genomics of Graduate School of Fisheries Science of Hokkaido University lo learn in situ hybridization methods or Fish Physiology and Genomics Institute of INRA in Rennes to learn

transcriptome evaluation of germ cells and finally she visited Department of Basic Sciences of Faculty of Veterinary Medicine of NMBU in Oslo to perform single-cell qPCR analysis of medaka pituitary cells.

Ksenia has good experience with scientific communication – she contributed by oral presentations to program of 2 international conferences and supervised students of summer schools organised by faculty.

On the end of my commentary I also would remark that it was not easy to work with Ksenia because of her extreme procrastination tendency. I believed that this was treated by her employment in international trade but completing of thesis was challenging experience again. But still I have to conclude that cooperation with Ksenia enriched me and Ksenia showed enthusiasm and friendly behavior in every situation.

Finally, Ksenia fulfilled what was needed to complete thesis and I recommend thesis of Ksenia for defence.

FINAL RECOMMENDATION

- [x] **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**

6.8.2020
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Date and place

Vojtech Kodeš
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surname and signature