

Curriculum vitae

Name: Fokina Natalia N.

Date of Birth: 11th August, 1982.

Work place: Institute of Biology Karelian Research Centre of Russian Academy of Sciences, 185910, Pushkinskaja st, 11, Petrozavodsk, Russia

Phone: +7 (8142) 769810

e-mail: fokinann@gmail.com

Position: researcher, PhD

List of Publications:

1. Kantserova N.P., Fokina N.N., Lysenko L.A., Nemova N.N. 2012. Correlation of intracellular Ca^{2+} -dependent proteinase activity and the content of membrane lipid components in mussels, *Mytilus edulis*, under heavy metal accumulation // *Bioorganical chemistry*. V.38. N1, pp.86-91. [in Russian]
2. Fokina N.N., Ruokolainen T.R., Fomina O.V., Lesonen N.V., Shklajrevich G.A., Nemova N.N. 2011. The lipid composition of intertidal blue mussels *Mytilus edulis* L. from different habitats in Kandalaksh bay of the White Sea // *Proceedings of Petrozavodsk State University*. N.8. pp.7-13. [in Russian]
3. Fokina N.N., Nefedova Z.A., Nemova N.N.. 2011. Biochemical adaptations of marine bivalves to anoxic conditions (Review) // *Proceedings of Karelian Research Centre of the Russian Academy of Sciences*. N3. pp. 121-130. [in Russian]
4. Fokina N.N., Nefedova Z.A., Nemova N.N. 2010. Lipid Composition of *Mytilus edulis* L. Mussels from the White Sea. Effect of Some Environmental Factors. Petrozavodsk, Karelian Research Centre of RAS. 243. [in Russian]
5. Bakhmet I.N., Fokina N.N., Nefedova Z.A., Nemova N.N. 2009. Physiological–biochemical properties of blue mussel *Mytilus edulis* adaptation to oil contamination. *Environmental Monitoring and Assessment*. 155, pp. 581–591.
6. Fokina N.N., Nefedova Z.A., Nemova N.N., Khalaman V.V. 2007. Modulating role of lipids and their fatty acids in adaptation of the White Sea mussels *Mytilus edulis* L. to environmental salinity change // *Journal of Evolutionary Biochemistry and Physiology*. V. 43, N4. pp. 379-387.
7. Kyaivyaryainen E.I., Nefedova Z.A., Bondareva L.A., Alekseeva N.N. (Fokina N.N.), Nemova N.N. 2005. Correlation of intracellular Ca^{2+} -activated proteinase activity and cholesterol content in White Sea mussels (*Mytilus edulis*) membranes at different water salinity // *Bulletin of Experimental Biology and Medicine*. V.140. N4. pp. 455-458.

Conferences (abstracts):

1. Alekseeva N.N. (Fokina N.N.), Nefedova Z.A., Ruokolainen T.R., Nemova N.N., Bahmet I.N. Role of lipids and fatty acids in the ecologo-biochemical adaptations of White Sea mussels (*Mytilus edulis* L.) // Chemistry and physics of lipids. Abstracts from the FEBS Special Meeting: 45th International Conference on the Bioscience of Lipids. v.130 (1). 2004. p.56.
2. Fokina N.N., Nefedova Z.A., Ruokolainen T.R. and Nemova N.N. The role of lipids in the acclimation to salinity in euryhaline mussels *Mytilus edulis* L. in the White Sea // Chemistry and physics of lipids. Abstracts from 47th International Conference on the Bioscience of Lipids. v.143. 2006. p. 85.
3. Fokina N., Nemova N., Nefedova Z. Fatty acid composition of mussels *Mytilus edulis* under short-term anoxia // Chemistry and physics of lipids. Abstracts from 48th International Conference on the Bioscience of Lipids. v. 149S. 2007. p. S60 .
4. Fokina N.N., Nefedova Z.A., Nemova N.N. White Sea mussels *Mytilus edulis* L. as a source of n-3 polyenic fatty acids // Current problems of physiology and biochemistry of aquatic organisms. Volume II. Arctic and Sub-Arctic biological resources – potential for biotechnology. Proceedings of the first international seminar and PhD workshop (6-9 September, 2010) pp. 24-25.
5. Lesonen N.V., Fokina N.N., Nemova N.N. Lipid content of mussels, *Mytilus edulis*, as a biomarker of marine environment heavy metal pollution // Current problems of physiology and biochemistry of aquatic organisms. Volume II. Arctic and Sub-Arctic biological resources – potential for biotechnology. Proceedings of the first international seminar and PhD workshop (6-9 September, 2010) pp.47-49.
6. Nemova N., Meshcheryakova O., Fokina N., Nefedova Z., Lysenko L., Kyaivyaryainen E., Bakhmet I. Biochemical mechanisms of adaptation of *Mytilus edulis* from the White Sea to environmental factors // Polar worlds. Mondes polaires. Paris, 2011. Abstracts. - P.41.

Key words: lipids, fatty acids, phospholipids, Bivalve, biochemical adaptation, mechanisms of adaptation, blue mussel *Mytilus edulis*

Methods: chromatography of total lipids (thin-layer chromatography, TLC), separate fractions of phospholipids (high performance liquid chromatography, HPLC) and methyl esters of fatty acid composition (gas liquid chromatography, GLC).