

## Сведения о научных руководителях

диссертации *Тверского Артёма Михайловича*

«Анализ механизма цитотоксического действия кардиотонических стероидов»

**Научный руководитель:** Орлов Сергей Николаевич

**Ученая степень:** доктор биологических наук

**Ученое звание:** профессор

**Должность:** заведующий лабораторией физико-химии биологических мембран

**Место работы:** МГУ имени М.В.Ломоносова, биологический факультет

**Адрес места работы:** 119234 г. Москва, Ленинские горы, д.1, стр. 12

### Список основных научных публикаций по специальности 03.01.04 – «Биохимия» за последние 5 лет:

1. Reed E., Ard S., La J, Park CY, Culligan L., Fredberg JJ, Smolyaninova LV, **Orlov SN**, Chen B., Guzy R., Mutlu GM, Dulin // Anti-fibrotic effects of tannic acid through regulation of a sustained TGF-beta receptor signaling // *Respiratory Research*, 2019, том 20, № 1, с. 168-168.
2. Dulin NO., Smolyaninova LV., **Orlov SN**. Control of lung myofibroblast transformation by monovalent ion transporters // *Current topics in membranes*, 2019, doi.org/10.1016/bs.ctm.2019.01.002.
3. Shiyani AA., Sidorenko SV., Fedorov DA., Klimanova EA., Smolyaninova LV., Kapilevich LV., Grygorczyk R, **Orlov SN**. Elevation of Intracellular Na<sup>+</sup> Contributes to Expression of Early Response Genes Triggered by Endothelial Cell Shrinkage // *Cellular Physiology and Biochemistry*, 2019, том 53, № 4, с. 638-647.
4. Maksimov GV., Kutuzov NP., Shutova VV., **Orlov SN**. Microdomain Organization of Internodal Myelin // *Biochemistry, Supplemental Series A*, 2019, том 13, № 3, с. 260-267.
5. **Orlov SN.**, La J, Smolyaninova L.V., Dulin N.O. Na<sup>+</sup>,K<sup>+</sup>-ATPase as a target for treatment of tissue fibrosis // *Current Medicinal Chemistry*, 2019, том 26, № 3, с. 564-575.
6. Shawn A., Reed EB., Smolyaninova Larisa V., **Orlov SN.**, Mutlu GM., Guzy RD., and Dulin NO. Sustained Smad2 phosphorylation is required for myofibroblast transformation in response to TGF-beta // *American Journal of Respiratory Cell and Molecular Biology*, 2019, том 60, № 3, с. 367-369.

7. Smolyaninova L.V., Shiyan AA., Kapilevich LV., Lopachev AV., Fedorova TN., Klementieva TS., Moskovtsev AA., Kubatiev AA., **Orlov SN.** Transcriptomic changes triggered by ouabain in rat cerebellum granule cells: role of alpha3- and alpha1-Na<sup>+</sup>,K<sup>+</sup>-ATPase-mediated signaling // *PLoS ONE*, 2019, doi: 10.1371/journal.pone.0222767.
8. Klimanova EA., Sidorenko SV., Smolyaninova LV., Kapilevich LV., Gusakova SV., Lopina OD., **Orlov SN.** Ubiquitous and cell type-specific transcriptomic changes triggered by dissipation of monovalent cation gradients in rodent cells: Physiological and pathophysiological implications // *Current topics in membranes*, 2019, doi.org/10.1016/bs.ctm.2019.01.006.
9. Sidorenko SV., Ziganshin RH., Luneva OG., Deev LI., Alekseeva NV., Maksimov GV., Grygorczyk R., **Orlov SN.** Proteomics-based identification of hypoxia-sensitive membrane-bound proteins in rat erythrocytes // *Journal of Proteomics*, 2018, 184. с. 25-33.
10. Klimanova EA., Tverskoi AM., Koltsova SV., Sidorenko SV., Lopina OD., Tremblay J., Hamet P., Kapilevich LV., **Orlov SN.** Time- and dose dependent actions of cardiotonic steroids on transcriptome and intracellular content of Na<sup>+</sup> and K<sup>+</sup>: a comparative analysis // *Scientific reports*, 2017, № 7, с. 1-11.

**Научный руководитель:** Лопина Ольга Дмитриевна

**Ученая степень:** доктор биологических наук

**Ученое звание:** профессор

**Должность:** ведущий научный сотрудник кафедры биохимии

**Место работы:** МГУ имени М.В.Ломоносова, биологический факультет

**Адрес места работы:** 119234 г. Москва, Ленинские горы, д.1, стр. 12

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1. Klimanova EA., Sidorenko SV., Smolyaninova LV., Kapilevich LV., Gusakova SV., Lopina OD., **Orlov SN.** Ubiquitous and cell type-specific transcriptomic changes triggered by dissipation of monovalent cation gradients in rodent cells: Physiological and pathophysiological implications // *Current topics in membranes*, 2019, doi.org/10.1016/bs.ctm.2019.01.006.
2. Dergousova EA., Petrushanko IY, Klimanova EA., Ziganshin RH., **Lopina OD.**, Makarov AA. Enhancement of Na,K-ATPase Activity as a Result of Removal of Redox

Modifications from Cysteine Residues of the  $\alpha 1$  Subunit: the Effect of Reducing Agents // *Molecular Biology*, 2018, том 52, № 2, с. 247-250.

3. Dergousova EA., Poluektov YM., Klimanova EA., Petrushanko IY., Mitkevich VA., Makarov AA., **Lopina OD.** Glutathionylation of Na,K-ATPase Alpha-Subunit Alters Enzyme Conformation and Sensitivity to Trypsinolysis // *Biochemistry (Moscow)*, 2018, том 83, № 8, с. 969-981.
4. Barykin EP., Petrushanko IY., Kozin SA., Telegin GB., Chernov AS., **Lopina OD.**, Radko SP., Mitkevich VA., Makarov AA. Phosphorylation of the Amyloid-Beta Peptide Inhibits Zinc-Dependent Aggregation, Prevents Na,K-ATPase Inhibition, and Reduces Cerebral Plaque Deposition // *Frontiers in Molecular Neuroscience*, doi: 10.3389/fnmol.2018.00302.
5. Sidorenko SV., Klimanova EA, Milovanova KG, **Lopina OD.**, Kapilevich LV., Chibalin AV., Orlov SN. Transcriptomic changes in C2C12 myotubes triggered by electrical stimulation: role of Ca-mediated and Ca-independent signaling and elevated  $[Na^+]_i/[K^+]_i$  ratio // *Cell Calcium*, 2018, № 76, с. 72-86.
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7. Orlov SN., Klimanova EA., Tverskoi AM., Vladychenskaya E A., Smolyaninova LV., **Lopina OD.**  $Na^+_i, K^+_i$ -Dependent and -Independent Signaling Triggered by Cardiotonic Steroids: Facts and Artifacts // *Molecules*, 2017, том 22, № 4.
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9. Klimanova EA., Tverskoi AM., Koltsova SV., Sidorenko SV., **Lopina OD.**, Tremblay J., Hamet P., Kapilevich LV., Orlov SN. Time- and dose dependent actions of cardiotonic steroids on transcriptome and intracellular content of  $Na^+$  and  $K^+$ : a comparative analysis // *Scientific reports*, 2017, № 7, с. 1-11.
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Ученый секретарь

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