

CURRICULUM VITAE

Vladimir A. Chistyakov

Southern Federal University, Rostov-on-Don, Russia

E-mail: vladimirchi@yandex.ru; Cell: +7 909 440-90-75

PROFESSIONAL AFFILIATIONS

Research Positions

- 2014 – Present** Research Professor, D.I. Ivanovsky Academy of Biology and Biotechnology, Southern Federal University, Rostov-on-Don, Russia
- 2011– 2013** Head of the Central Research Laboratory, Rostov State Medical University, Rostov-on-Don, Russia
- 2008 – Present** Head of the Experimental Mutagenesis Laboratory, Research Institute of Biology, D.I. Ivanovsky Academy of Biology and Biotechnology, Southern Federal University, Rostov-on-Don, Russia
- 2004 – 2008** Senior Researcher, Azov Sea Fishery Research Institute (AzNIIRKh), Rostov-on-Don, Russia
- 2004 – 2008** Technologist-Microbiologist, Atlantis-Pak, Rostov-on-Don, Russia
- 2002 – 2004** Head of the Laboratory of Integral Ecological Expertise of Azov Sea Fishery Research Institute (AzNIIRKh), Rostov-on-Don, Russia
- 1988 – 2002** Senior researcher, Azov-Sea Fishery Research Institute (AzNIIRKh), Rostov-on-Don, Russia
- 1985 – 1988** Researcher, Research Institute of Biology, D.I. Ivanovsky Academy of Biology and Biotechnology, Southern Federal University, Rostov-on-Don, Russia

Academic Positions

- 2013 – 2014** Professor, Faculty of Biological Sciences, Southern Federal University, Rostov-on-Don, Russia
- 1992 – 1996** Assistant Professor, Faculty of Biology and Soil Science, Rostov State University, Rostov-on-Don, Russia

DEGREES AND AWARDS

Degrees

- 2011 Doctor of Science in Biology, Southern Federal University, Rostov-on-Don, Russia
- 1986 Ph. D. in Biology, Rostov State University, Rostov-on-Don, Russia
- 1982 M.S. in Biology, Rostov State University, Rostov-on-Don, Russia

Honor and Awards

- 2003 Medal "300 Years of the Russian Navy"

RESUME

Dr. Chistyakov is a qualified expert in pharmacology, biochemistry, biophysics and genetic toxicology. He has many years of productive experience in scientific research management. He established the Laboratory of Experimental Mutagenesis (the Institute of Biology, Southern Federal University, SFedU). In this laboratory, a number of projects supported by AVTSP, FTP and SFedU internal grants, have been successfully carried out. Dr. Chistyakov participated in a commercial research project "The practical use of Skulachev's ions." In the frames of this project, Dr. Chistyakov supervised several studies and showed for the first time antimutagenic, endocrine and NO generation stimulating activity of 10-(6'-plastoquinonyl) decyltriphenylphosphonium (SkQ1). The project served as a foundation for the first national mitochondria-targeted formulation, "Visomitin." Under the

leadership of Dr. Chistyakov, models of age-related loss of cellularity and of the interaction of the C60 fullerene with protons were established. Dr. Chistyakov guided several research projects that showed probiotic properties of sporeforming microorganisms, and the genomes of most promising strains were studied. Dr. Chistyakov's laboratory conducted in vitro experiments, which proved the ability of *Bacillus* probiotic spent media to produce biologically active antioxidants and DNA protectors. Dr. Chistyakov has experience in research on processes of aging, including reproductive aging, the development of probiotic products and their application in poultry.

Research Projects Management (last five years)

1. Slowing down the reproductive aging of hens by the cultures of probiotic microorganisms producers of substances with antioxidant and DNA-protective activity (2016 – 2018, funding: Russian Science Foundation, grant RSF №16-16-04032).
2. Study of the resistance of microorganisms to antimicrobial preparations caused by application of mutagenic drugs (2014 – 2017, funding: Ministry of Education and Science of the Russian Federation, state assignment).
3. Findpath of DNA damage decreasing in allergic diseases of children under the age of 3 years old (2012 – 2013, funding: Ministry of Education and Science of the Russian Federation, targeted program).
4. Study of the mechanisms of antioxidant activity of fullerene C60 № 213.01.24/2013-43 (2013, funding: grant of SFedU).
5. Investigation of mechanisms and search for ways of correction of toxic effects of neurological pathology therapy based on nonsteroidal anti-inflammatory drugs (2012 – 2013, funding: Ministry of Health of the Russian Federation, state assignment).

SELECTED PUBLICATIONS (last five years)

1. Chikindas ML, Weeks R, Drider D, Chistyakov VA, Dicks LM. Functions and emerging applications of bacteriocins// Curr. Opin. Biotechnol. – 2017. – V. 5;49. – P. 23-28. doi: 10.1016/j.copbio.2017.07.011. IF= 8.681
2. Khardziani T, Kachlishvili E, Sokhadze K, Elisashvili V, Weeks R, Chikindas ML, Chistyakov V. Elucidation of *Bacillus subtilis* KATMIRA 1933 Potential for Spore Production in Submerged Fermentation of Plant Raw Materials// Probiotics and Antimicrobial Proteins. – 2017. – V. 9(4). – P. 435-443. doi: 10.1007/s12602-017-9303-9. IF= 1.
3. Khardziani, T., Sokhadze, K., Kachlishvili, E., Chistyakov, V., Elisashvili, V. Optimization of enhanced probiotic spores production in submerged cultivation of *Bacillus amyloliquefaciens* B-1895 // J. Microbiol. Biotech. Food Sci. – 2017. – V. 7 (2). – P. 132-136. IF= 2.9
4. Algburi, S. Zehm, V. Netrebov, A. B. Bren, V. Chistyakov, M. L. Chikindas Subtilisin prevents biofilm formation by inhibiting bacterial quorum sensing// Probiotics and Antimicrobial Proteins. — 2017. — V. 9 (1). — P.81-90. doi: 10.1007/s12602-016-9242-x. <https://link.springer.com/article/10.1007%2Fs12602-016-9242-x> IF= 1.6
5. Y. P. Galvan, I. Alperovich, P. Zolotukhin, E. Prazdnova, M. Mazanko, A. Belanova and Vladimir Chistyakov Fullerenes as Anti-aging Antioxidants//Current Aging Science, 2017. - V.10- N.1 - P. 56-67. <http://www.ingentaconnect.com/contentone/ben/cas/2017/00000010/00000001/art00013> IF=0.543 DOI: 10.2174/1874609809666160921120008 <http://www.eurekaselect.com/145681/article>

6. M.S. Mazanko, V.A. Chistyakov, E.V. Zhednova, I.O. Pokudina, M.N. Churilov, V.K. Chmykhalo, M.M. Batiushin. Dioxidine induces antibiotic resistance of bacteria //Molecular Genetics, Microbiology and Virology, 2016. - № 6. - P. 149-154. WOS Impact 0.183
7. P. V. Zolotukhin, A. A. Belanova, E. V. Prazdnova, M. S. Mazanko, M. M. Batiushin, V. K. Chmyhalo, & V. A. Chistyakov. Mitochondria as a signaling Hub and target for phenoptosis shutdown. Biochemistry (Moscow). 2016, 81(4), 329-337. <https://link.springer.com/article/10.1134/S0006297916040039> DOI: 10.1134/S0006297916040039 IF=1.537
8. V.A. Chistyakov, P.V. Zolotukhin., E.V. Prazdnova, I. Alperovich, A.V. Soldatov. Physical consequences of the mitochondrial targeting of single-walled carbon nanotubes probed computationally // Physica E: Low-dimensional Systems and Nanostructures (2015) V.70. P.198-202. <http://www.sciencedirect.com/science/article/pii/S1386947715001046> DOI: 10.1016/j.physe.2015.03.005, IF=1.550.
9. V.A. Chistyakov, Yu.V. Denisenko. Aging saves populations from extinction under lack of resources: In silico experiments. // Biochemistry (Moscow). - 2015. - V.80. - № 5. - pp. 636 – 639. <http://protein.bio.msu.ru/biokhimiya/contents/v80/full/80050754.html>, DOI:10.1134/S000629791505017X. IF=1.226.
10. V. Chistyakov, V. Melnikov, M. Chikindas, M. Khutsishvili, A. Chagelishvili, A. Bren, N. Kostina, V. Cavera and V. Elisashvili. Poultry-beneficial solid-state *Bacillus amyloliquefaciens* B-1895 fermented soybean formulation // Bioscience of Microbiota, Food and Health. - 2015. - Vol. 34 (1). - P. 25–28. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4300313/>
11. E.V. Prazdnova, V.A. Chistyakov, M.N. Churilov, M.S. Mazanko, A.B. Bren, M.L. Chikindas, A. Volsky. DNA-protection and anti-oxidant properties of fermentates from two bacilli strains with probiotic capacity // Letters in Applied Microbiology, 09/2015; onlinelibrary.wiley.com/doi/10.1111/lam.12491 DOI:10.1111/lam.12491 IF=1,66.
12. V.A. Chistyakov, Yu.P. Semenyuk, P.G. Morozov, E.V. Prazdnova, V.K. Chmyhalo, E.J. Kharchenko, M.E. Kletsky, G.S. Borodkin, A.V. Lisovin, O.N. Burov, S.V. Kurbatov. Synthesis and biological properties of nitrobenzoxadiazol derivatives - potential donors of nitric oxide (II): SOX-induction, toxicity, genotoxicity and DNA-protective activity in the experiments with *Escherichia coli* lux-biosensors // Proc. Academy of Sciences, Chem. - 2015. - № 6. - P. 1369 - 1378. http://www.biolmedonline.com/Articles/Vol7_3_2015/BM-123-15_Synthesis-and-biological-properties-of-new-nitrobenzoxazole-derivatives.pdf
13. A.V. Karlyshev, V.G. Melnikov, V.A. Chistyakov. Draft Genome Sequence of *Bacillus amyloliquefaciens* B-1895 [Электронный ресурс] // Genome Announc. — 2014. — № 2(3):e00633-14. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064039/doi:10.1128/genomeA.00633-14>
14. V.A. Chistyakov, Yu.O. Smirnova, E.V. Prazdnova, A.V. Soldatov. Possible Mechanisms of Fullerene C60 Antioxidant Action // Bio Med Research International. — 2013. <http://www.ncbi.nlm.nih.gov/pubmed/?term=Possible+Mechanisms+of+Fullerene+C60+Antioxidant+Action> DOI: 10.1155/2013/821498 IF=1.579

15. E.A. Chugunova, M.A. Sazykina, E.M.Gibadullina, A.R.Burilov, I.S. Sazykin, V.A. Chistyakov, R.E. Timasheva, D.B. Krivolapov, R.Goumont Synthesis, Genotoxicity and UV-protective Activity of New Benzofuroxans Substituted by Aromatic Amines // Letters in Drug Design & Discovery. — 2013. — № 10. — P. 145-154. <http://www.eurekaselect.com/105817> DOI: 10.2174/157018013804725080, IF=1.17.