

Сведения об официальном оппоненте

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Список основных публикаций по теме диссертации за последние 5 лет:

1. Varizhuk, E. Isaakova, G. Pozmogova. DNA G-Quadruplexes (G4s) Modulate Epigenetic (Re)Programming and Chromatin Remodeling.// Bioessays 41, 1900091 (2019).
2. A.V. Turaev, V.B. Tsvetkov, M.V. Tankevich, I.P. Smirnov, A.V. Aralov, G.E. Pozmogova, A.M. Varizhuk. Benzothiazole-based cyanines as fluorescent “light-up” probes for duplex and quadruplex DNA.// Biochimie- 2019; 162: 216-228 .
3. V.B. Tsvetkov, T.S. Zatsepin, A.V. Turaev, V.M. Farzan, G.E. Pozmogova, A.V. Aralov, A.M. Varizhuk. DNA i-Motifs With Guanidino-i-Clamp Residues: The Counterplay Between Kinetics and Thermodynamics and Implications for the Design of pH Sensors.// Computational and Structural Biotechnology Journal - 2019; 17: 527-536 .
4. Tsvetkov V.B., Zatsepin T.S., Belyaev E.S., Kostyukevich Y.I., Shpakovski G.V., Podgorsky V.V., Pozmogova G.E., Varizhuk A.M.Aralov A.V. i-Clamp phenoxazine for the fine tuning of DNA i-motif stability // Nucleic Acids Research. - 2018; 46 (6): 2751-2764.
5. Protopopova A.D., Tsvetkov V.B., Varizhuk A.M., Barinov N.A., Podgorsky V.V., Klinov D.V.Pozmogova G.E. The structural diversity of C-rich DNA aggregates: unusual self-assembly of beetle-like nanostructures // Physical Chemistry Chemical Physics. - 2018; 20 (5): 3543-3553.
6. Doronin D.A., Barykina N.V., Subach O.M., Sotskov V.P., Plusnin V.V., Ivleva O.A., Isaakova E.A., Varizhuk A.M., Pozmogova G.E., Malyshev A.Y., Smirnov I.V., Piatkevich K.D., Anokhin K.V., Enikolopov G.N.Subach F.V. Genetically encoded calcium indicator with NTnC-like design and enhanced fluorescence contrast and kinetics // BMC Biotechnology. - 2018; 18 10.

7. Varizhuk A.M., Protopopova A.D., Tsvetkov V.B., Barinov N.A., Podgorsky V.V., Tankevich M.V., Vlasenok M.A., Severov V.V., Smirnov I.P., Dubrovin E.V., Klinov D.V., Pozmogova G.E. Polymorphism of G4 associates: from stacks to wires via interlocks // *Nucleic Acids Research*. - 2018; 46: 8978-8992 .
8. Varizhuk A., Ischenko D., Tsvetkov V., Novikov R., Kulemin N., Kaluzhny D., Vlasenok M., Naumov V., Smirnov I., Pozmogova G. The expanding repertoire of G4 DNA structures // *Biochimie*. - 2017; 135: 54-62.
9. Barykina N.V., Subach O.M., Piatkevich K.D., Jung E.E., Malyshev A.Y., Smirnov I.V., Bogorodskiy A.O., Borshchevskiy V.I., Varizhuk A.M., Pozmogova G.E., Boyden E.S., Anokhin K.V., Enikolopov G.N., Subach F.V. Green fluorescent genetically encoded calcium indicator based on calmodulin/M13-peptide from fungi // *PLoS ONE*. - 2017; 12 (8): e0183757.
10. Kirillova Y., Boyarskaya N., Dezhnev A., Tankevich M., Prokhorov I., Varizhuk A., Eremin S., Esipov D., Smirnov I., Pozmogova G. Polyanionic Carboxyethyl Peptide Nucleic Acids (ce-PNAs): Synthesis and DNA Binding // *PLoS ONE*. - 2015; 10 (10). e0140468. <https://doi.org/10.1371/journal.pone.0140468>.
11. Chuvilin A.N., Smirnov I.P., Mosina A.G., Varizhuk A.M., Pozmogova G.E. A Solution to the Common Problem of the Synthesis and Applications of Hexachlorofluorescein Labeled Oligonucleotides // *PLoS ONE*. - 2016; 11 (11): e0166911.
12. Barykina N.V., Subach O.M., Doronin D.A., Sotskov V.P., Roshchina M.A., Kunitsyna T.A., Malyshev A.Y., Smirnov I.V., Azieva A.M., Sokolov I.S., Piatkevich K.D., Burtsev M.S., Varizhuk A.M., Pozmogova G.E., Anokhin K.V., Subach F.V., Enikolopov G.N. A new design for a green calcium indicator with a smaller size and a reduced number of calcium-binding sites // *Scientific Reports*. - 2016; 6: 34447.
13. Tsvetkov V.B., Varizhuk A.M., Pozmogova G.E., Smirnov I.P., Kolganova N.A., Timofeev E.N. A Universal Base in a Specific Role: Tuning up a Thrombin Aptamer with 5-Nitroindole // *Scientific Reports*. - 2015; 5: 16337.