

9. б/ Списък на научните публикации и други научно-приложни резултати на доц. д-р Роберт Пенчовски за участие в конкурс за професор – общо 25 публикации, от които в 25 водещ автор (първи или последен) с общ импакт фактор – 39

I. Публикации в научни списания – (14 публикации)

1. Robert Penchovsky, Nikolet Pavlova, Dimitrios Kaloudas - RSwitch: a novel bioinformatics database on riboswitches as antibacterial drug targets - in press 2020, *IEEE Transactions on Computational Biology and Bioinformatics*, Q1 – 25 т. (MATHEMATICS, INTERDISCIPLINARY APPLICATIONS), IF – 2,68
https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=F4xV6CKveaXUdJAuOu6&page=1&doc=4
2. Robert Penchovsky - Automated DNA hybridization transfer with movable super-paramagnetic microbeads in a microflow reactor – 2019, *Biosensors and Bioelectronics*, 0956-5663, Q1 – 25 т. (Biochemistry, Genetics and Molecular Biology), IF – 8,17,
<https://www.scimagojr.com/journalsearch.php?q=15437&tip=sid>
3. Robert Penchovsky and Aikaterini Valsamatzi - Engineering antisense oligonucleotides as antibacterial agents – 2019, *Arch Clin Microbiol*, 1989-8436, Q4 – 12 т. (Medicine), IF – 0,16
<https://www.scimagojr.com/journalsearch.php?q=21100225606&tip=sid>
4. Robert Penchovsky, Nikolet Pavlova, Dimitrios Kaloudas - ExBWS: Extended Bioinformatics Web Services for Sequence Analyses – 2020, in press *International Journal of Bioinformatics Research and Applications*,
<https://www.inderscience.com/info/ingeneral/forthcoming.php?jcode=IJBRA> , 1744-5485, Q4 – 12 т. (Biochemistry, Genetics and Molecular Biology), IF – 0,7
<https://www.scimagojr.com/journalsearch.php?q=4400151606&tip=sid>
5. Nikolet Pavlova, Robert Penchovsky - Genome-wide bioinformatics analysis of FMN, SAM-I, glmS, TPP, Lysine, Purine, Cobalamin, and SAH riboswitches for their applications as allosteric antibacterial drug targets in human pathogenic bacteria – 2019, *Expert Opinion on Therapeutic Targets*, Q1 – 25 т. (Biochemistry, Genetics and Molecular Biology), IF – 4,5
<https://www.scimagojr.com/journalsearch.php?q=21354&tip=sid>
6. Nikolet Pavlova, Dimitrios Kaloudas, Robert Penchovsky - Riboswitch distribution, structure, and function in bacteria – 2019, *Gene*, 0378-1119, Q1 – 25 т. (Biochemistry, Genetics and Molecular Biology), IF – 2,5
<https://www.scimagojr.com/journalsearch.php?q=15636&tip=sid&clean=0>
7. Dimitrios Kaloudas, Robert Penchovsky - Arabidopsis Homologues to the LRAT a Possible Substrate for New Plant-Based Anti-Cancer Drug Development – 2018, *International Journal of Biomedical and Clinical Engineering (IJBCE)*, 2161-1610
8. Martina Traykovska, Sjoerd Miedema and Robert Penchovsky - Clinical Trials of Functional Nucleic Acids: Antisense Oligonucleotides and Aptamers – 2018, *International Journal of Biomedical and Clinical Engineering (IJBCE)*, 2161-1610
9. Dimitrios Kaloudas, Nikolet Pavlova, Robert Penchovsky - EBWS: Essential Bioinformatics Web Services for Sequence Analyses - 2018, *IEEE Transactions on Computational Biology and Bioinformatics*, 1557-9964, Q1 – 25 т. (MATHEMATICS, INTERDISCIPLINARY APPLICATIONS), IF – 2,68
https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=F4xV6CKveaXUdJAuOu6&page=1&doc=4

10. Dimitrios Kaloudas, Robert Penchovsky - Plant-Derived Compounds and Their Potential Role in Drug Development – 2018, *International Journal of Biomedical and Clinical Engineering (IJBC)*, 2161-1610
11. Katya B Popova, Lozena A Otcheva, Martina Traykovska and Robert Penchovsky - RNA as A Potent Target for Antibacterial Drug Discovery – 2018, *Biomedical Journal of Scientific and Technical Research*, 2574-1241, Q4 – 12 т., IF – 0,548
12. Robert Penchovsky and Martina Traykovska - Designing drugs that overcome antibacterial resistance: where do we stand and what should we do? – 2015, *Expert opinion on drug discovery*, 1746-0441, Q1 – 25 т. (Pharmacology, Toxicology and Pharmaceutics), IF – 4,66 <https://www.scimagojr.com/journalsearch.php?q=6800153101&tip=sid&clean=0>
13. Robert Penchovsky - Computational Design of Allosteric Ribozymes as Molecular Biosensors – 2014, *Biotechnology Advances*, Q1 – 25 т. (Biochemistry, Genetics and Molecular Biology), IF – 11,866 <https://www.scimagojr.com/journalsearch.php?q=15461&tip=sid&clean=0> <https://www.scimagojr.com/journalsearch.php?q=19900193739&tip=sid>
14. Robert Penchovsky - Present and Future RNA-based Approaches to Medical Genomics – 2013, *Journal of Clinical & Medical Genomics*, 2472-128X, IF – 0,58

II. Книги – (1 книга)

15. Robert Penchovsky - An Integrated DNA Selection in Micro-flow Reactors as an Approach for Molecular Computation and Diagnostics (book) - 2019, ISBN:978-619-91360-1 – 20 т.

III. Глави от книги – (4 глави от книги)

16. Aikaterini Valsamatzi-Panagiotou, Katya B. Popova, Robert Penchovsky - Migration of Antimicrobial resistance (book chapter – “Strategies for prevention and containment of antimicrobial resistance”) - in press 2020, *Springer* – 15 т.
17. Aikaterini Valsamatzi-Panagiotou, Katya B. Popova, Robert Penchovsky - Migration of Antimicrobial resistance (book chapter – “Drug discovery targeting drug-resistant bacteria”) - in press 2020, *Springer* - 15 т.
18. Aikaterini Valsamatzi-Panagiotou, Martina Traykovska, Robert Penchovsky - Mechanisms of Drug resistance and Approaches to overcome it (book chapter) – 2019, *Elsevier* - 15 т.
19. Robert Penchovsky and Martina Traykovska - Synthetic Approaches to Biology: engineering gene control circuits, synthesizing, and editing genomes, *Emerging Research on Bioinspired Materials Engineering* (book chapter) – 2016, *IGI Global*, 9781466698116 – 15 т.

IV. Публикации от конференции (5 публикации)

20. Lozena A. Otcheva, Katya B. Popova, Nikolett Pavlova, Martina Traykovska, Robert Penchovsky - Control of gene expression by bacterial riboswitches and their application as drug targets – 2018, *14th Congress of Microbiologists in Bulgaria with International Participation*
21. Robert Penchovsky, Katya B. Popova, Lozena A. Otcheva, Martina Traykovska - Probing general toxicity of antisense oligonucleotides to bacterial and mammalian cells – 2018, *14th Congress of Microbiologists in Bulgaria with International Participation*
22. Robert Penchovsky - Computational Design of Allosteric Ribozymes as Biosensors and Molecular Computing Devices – 2014, *125 Годишнина Математика и Природни Науки в Софийски Университет "Св. Климент Охридски"*, 1313-9045
23. Robert Penchovsky, Martina Traykovska – Engineering microfluidic and nucleic-acids-based biosensing devices with versatile applications to modern biotechnology – 2013, *50 years faculty of biology, Kliment's days*

V. Патенти – (2 патента)

24. **112506-17.05.2017г.**, публикуван на 02.01/15.02.2019, одобрен на 22.01.2020 г.
Използване на антисенс олигонуклеотиди с антибактериално действие, издаден 2009 г.,
България – 25 т.
25. **WO 2018/197926** A1 Methods for creating novel antibacterial agent using chimeric antisense
oligonucleotides, издаден 2018 г., WIPO – 25 т.

Подпис:.....

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