# Yury S Polikanov

## List of Publications by Citations



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|---|---|---|---|
| 50 papers | 1,882 citations | 25 h-index | 43 g-index |
| 56 ext. papers | 2,551 ext. citations | 13.8 avg, IF | 4.98 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 50 | Nucleosomes can form a polar barrier to transcript elongation by RNA polymerase II. *Molecular Cell*, **2006**, 24, 469-79 | 17.6 | 201 |
| 49 | Structural insights into the role of rRNA modifications in protein synthesis and ribosome assembly. *Nature Structural and Molecular Biology*, **2015**, 22, 342-344 | 17.6 | 148 |
| 48 | How hibernation factors RMF, HPF, and YfiA turn off protein synthesis. *Science*, **2012**, 336, 915-8 | 33.3 | 145 |
| 47 | A proton wire to couple aminoacyl-tRNA accommodation and peptide-bond formation on the ribosome. *Nature Structural and Molecular Biology*, **2014**, 21, 787-93 | 17.6 | 127 |
| 46 | Ribosome-Targeting Antibiotics: Modes of Action, Mechanisms of Resistance, and Implications for Drug Design. *Annual Review of Biochemistry*, **2018**, 87, 451-478 | 29.1 | 98 |
| 45 | Structural and evolutionary insights into ribosomal RNA methylation. *Nature Chemical Biology*, **2018** , 14, 226-235 | 11.7 | 87 |
| 44 | Distant activation of transcription: mechanisms of enhancer action. *Molecular and Cellular Biology*, **2012**, 32, 4892-7 | 4.8 | 84 |
| 43 | Odilorhabdins, Antibacterial Agents that Cause Miscoding by Binding at a New Ribosomal Site. *Molecular Cell*, **2018**, 70, 83-94.e7 | 17.6 | 58 |
| 42 | Amicoumacin a inhibits translation by stabilizing mRNA interaction with the ribosome. *Molecular Cell*, **2014**, 56, 531-40 | 17.6 | 58 |
| 41 | Distinct tRNA Accommodation Intermediates Observed on the Ribosome with the Antibiotics Hygromycin A and A201A. *Molecular Cell*, **2015**, 58, 832-44 | 17.6 | 57 |
| 40 | Insights into RNA binding by the anticancer drug cisplatin from the crystal structure of cisplatin-modified ribosome. *Nucleic Acids Research*, **2016**, 44, 4978-87 | 20.1 | 50 |
| 39 | Pseudouridinylation of mRNA coding sequences alters translation. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 23068-23074 | 11.5 | 50 |
| 38 | The Mechanisms of Action of Ribosome-Targeting Peptide Antibiotics. *Frontiers in Molecular Biosciences*, **2018**, 5, 48 | 5.6 | 49 |
| 37 | Internucleosomal interactions mediated by histone tails allow distant communication in chromatin. *Journal of Biological Chemistry*, **2012**, 287, 20248-57 | 5.4 | 43 |
| 36 | In vitro activity of apramycin against multidrug-, carbapenem- and aminoglycoside-resistant Enterobacteriaceae and Acinetobacter baumannii. *Journal of Antimicrobial Chemotherapy*, **2019**, 74, 944-952 | 5.1 | 40 |
| 35 | Negamycin interferes with decoding and translocation by simultaneous interaction with rRNA and tRNA. *Molecular Cell*, **2014**, 56, 541-50 | 17.6 | 38 |
| 34 | Chromatin structure can strongly facilitate enhancer action over a distance. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 17690-5 | 11.5 | 36 |

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| 33 | Structures of the orthosomycin antibiotics avilamycin and evernimicin in complex with the bacterial 70S ribosome. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 7527-32 | 11.5 | 33 |
| 32 | Design, Multigram Synthesis, and in Vitro and in Vivo Evaluation of Propylamycin: A Semisynthetic 4,5-Deoxystreptamine Class Aminoglycoside for the Treatment of Drug-Resistant Enterobacteriaceae and Other Gram-Negative Pathogens. *Journal of the American Chemical Society*, **2019**, 141, 5051-5061 | 16.4 | 32 |
| 31 | Klebsazolicin inhibits 70S ribosome by obstructing the peptide exit tunnel. *Nature Chemical Biology*, **2017**, 13, 1129-1136 | 11.7 | 32 |
| 30 | High-resolution crystal structures of ribosome-bound chloramphenicol and erythromycin provide the ultimate basis for their competition. *Rna*, **2019**, 25, 600-606 | 5.8 | 30 |
| 29 | The antibiotics dityromycin and GE82832 bind protein S12 and block EF-G-catalyzed translocation. *Cell Reports*, **2014**, 6, 357-65 | 10.6 | 30 |
| 28 | Probability of the site juxtaposition determines the rate of protein-mediated DNA looping. *Biophysical Journal*, **2007**, 93, 2726-31 | 2.9 | 30 |
| 27 | Binding and Action of Amino Acid Analogs of Chloramphenicol upon the Bacterial Ribosome. *Journal of Molecular Biology*, **2018**, 430, 842-852 | 6.5 | 28 |
| 26 | Co-produced natural ketolides methymycin and pikromycin inhibit bacterial growth by preventing synthesis of a limited number of proteins. *Nucleic Acids Research*, **2017**, 45, 9573-9582 | 20.1 | 25 |
| 25 | Nucleosome-free DNA regions differentially affect distant communication in chromatin. *Nucleic Acids Research*, **2017**, 45, 3059-3067 | 20.1 | 22 |
| 24 | Structure of ribosome-bound azole-modified peptide phazolicin rationalizes its species-specific mode of bacterial translation inhibition. *Nature Communications*, **2019**, 10, 4563 | 17.4 | 22 |
| 23 | Structure of Erm-modified 70S ribosome reveals the mechanism of macrolide resistance. *Nature Chemical Biology*, **2021**, 17, 412-420 | 11.7 | 21 |
| 22 | A nucleotide-switch mechanism mediates opposing catalytic activities of Rel enzymes. *Nature Chemical Biology*, **2020**, 16, 834-840 | 11.7 | 20 |
| 21 | Madumycin II inhibits peptide bond formation by forcing the peptidyl transferase center into an inactive state. *Nucleic Acids Research*, **2017**, 45, 7507-7514 | 20.1 | 18 |
| 20 | Mechanistic insights into the slow peptide bond formation with D-amino acids in the ribosomal active site. *Nucleic Acids Research*, **2019**, 47, 2089-2100 | 20.1 | 18 |
| 19 | A synthetic antibiotic class overcoming bacterial multidrug resistance. *Nature*, **2021**, 599, 507-512 | 50.4 | 18 |
| 18 | Sarecycline interferes with tRNA accommodation and tethers mRNA to the 70S ribosome. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 20530-20537 | 11.5 | 17 |
| 17 | Tetracenomycin X inhibits translation by binding within the ribosomal exit tunnel. *Nature Chemical Biology*, **2020**, 16, 1071-1077 | 11.7 | 14 |
| 16 | Biochemical analysis of enhancer-promoter communication in chromatin. *Methods*, **2007**, 41, 250-8 | 4.6 | 14 |

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| 15 | Two transmembrane dimers of the bovine papillomavirus E5 oncoprotein clamp the PDGF  receptor in an active dimeric conformation. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E7262-E7271 | 11.5 | 13 |
| 14 | Elements of ribosomal drug resistance and specificity. *Current Opinion in Structural Biology*, **2012**, 22, 750-8 | 8.1 | 13 |
| 13 | Acoustic vibrations contribute to the diffuse scatter produced by ribosome crystals. *Acta Crystallographica Section D: Biological Crystallography*, **2015**, 71, 2021-31 | | 11 |
| 12 | Peptide Inhibitors of Bacterial Protein Synthesis with Broad Spectrum and SbmA-Independent Bactericidal Activity against Clinical Pathogens. *Journal of Medicinal Chemistry*, **2020**, 63, 9590-9602 | 8.3 | 11 |
| 11 | Structure of Dirithromycin Bound to the Bacterial Ribosome Suggests New Ways for Rational Improvement of Macrolides. *Antimicrobial Agents and Chemotherapy*, **2019**, 63, | 5.9 | 8 |
| 10 | Analysis of distant communication on defined chromatin templates in vitro. *Methods in Molecular Biology*, **2009**, 543, 563-76 | 1.4 | 8 |
| 9 | Insights into the improved macrolide inhibitory activity from the high-resolution cryo-EM structure of dirithromycin bound to the 70S ribosome. *Rna*, **2020**, 26, 715-723 | 5.8 | 6 |
| 8 | A selective antibiotic for Lyme disease. *Cell*, **2021**, 184, 5405-5418.e16 | 56.2 | 4 |
| 7 | Nucleotide-mediated allosteric regulation of bifunctional Rel enzymes | | 4 |
| 6 | Binding and Action of Triphenylphosphonium Analog of Chloramphenicol upon the Bacterial Ribosome. *Antibiotics*, **2021**, 10, | 4.9 | 4 |
| 5 | Structural basis for the context-specific action of the classic peptidyl transferase inhibitor chloramphenicol.. *Nature Structural and Molecular Biology*, **2022**, | 17.6 | 3 |
| 4 | A Synthetic Antibiotic Scaffold Effective Against Multidrug-Resistant Bacterial Pathogens | | 2 |
| 3 | The Odilorhabdin Antibiotic Biosynthetic Cluster and Acetyltransferase Self-Resistance Locus Are Niche and Species Specific.. *MBio*, **2022**, e0282621 | 7.8 | 1 |
| 2 | Phazolicin  a Novel Thiazole/Oxazole-Modified Peptide Inhibiting the Bacterial Ribosome in a Species-Specific Way | | 1 |
| 1 | The Role of Release Factors in the Hydrolysis of Ester Bond in Peptidyl-tRNA. *Biochemistry (Moscow)*, **2021**, 86, 1122-1127 | 2.9 | |