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**Organizational Unit:**

Department of Gene Regulation  
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**Research Interests / Keywords:**

Molecular biology, bioinformatics, structural biology, molecular dynamics.

**PhD Thesis:** Codon usage in bacteria and mammalian mitochondria**Selected publications:**

1. Rositsa Tsekovska, Yordan Handzhiyski, Elitsa Boteva, Kiril Kirilov, Toshimitsu Niwa, Ivan Ivanov, Roumyana Mironova. Advanced Glycation End Products in Escherichia coli K-12 – a Sign of Aging. In: Advanced Glycation End Products (AGEs): Regulation, Function and Role in Health and Disease. Nova Publishers, Inc. NY, USA, 2017 2017
2. Kiril Kirilov, Ivan G. Ivanov. Statistical Analysis of Codon Pairs Usage in Prokaryotic Genomes. 2, 1, 2015, ISSN:2367-5233 2015
3. Kiril T Kirilov, Ivan G Ivanov, Ashkan Golshani. Biotechnology & Biotechnological Equipment. 27, 4, 2013, ISSN:ISSN: 1310-2818, DOI:DOI: 10.5504/BBEQ.2013.0052, ISI IF:0.3 2013
4. Kiril T Kirilov, Ivan G Ivanov, Ashkan Golshani. Termination codons and stop codon context in bacteria and mammalian mitochondria. Biotechnology & Biotechnological Equipment, 2013, DOI:DOI:10.5504/BBEQ.2013.0052, ISI IF:0.3 2013
5. Kiril Kirilov, Ivan G Ivanov. A programme for determination of codons and codons context frequency of occurrence in sequenced genomes. Biotechnology & Biotechnological Equipment, 2012, ISSN:ISSN: 1310-2818, DOI:DOI: 10.5504/BBEQ.2012.0074, ISI IF:0.3 2012 1
6. Kiril Kirilov, Ivan Ivanov, Stoyan Markov, Vera Maximova. Comparative Genomic Studies of Influenza a Viruses Performed on Bluegene P Supercomputer: Part 1. Conservative Nucleotide Sequences in Influenza a Virus Genomes Revealed by Multiple Sequence Alignment. Biotechnology & Biotechnological Equipment, 2011, DOI:10.5504/bbeq.2011.0098, 8 2011

**Scientific projects for last 5 years:**

1. "Glycation and immunogenicity of protein therapeutics 2. Anti-glycation activity of vitamin B6 3. Repair of glycation damaged DNA", *financed by National Science Fund*. Project duration 2017–2018
2. Intelligent method for adaptive in-silico knowledge discovery and decision making based on analysis of big data streams for scientific research *financed by National Science Fund*. Project duration 2017–2019