

## **Jelena N. Guzina**

**Date/Place of Birth:** 28.02.1990. Trebinje (Bosnia and Herzegovina)

**Address:** Studentski trg 16, 11000 Belgrade, Serbia

**E-mail:** jelenag@bio.bg.ac.rs

**Phone:** +38111 3033 356

### **Education:**

- 2013** - PhD studies, University of Belgrade, Study program: Biophysics
- GPA: 100% (**10** out of 10)
- 2012 – 2013** - MA studies, Faculty of Biology, University of Belgrade, Study program: Molecular Biology and Physiology – Biophysics
- GPA: 98,6% (**9,86** out of 10)
  - Master-thesis – "*Bioinformatics analysis of a novel bacteriophage 7-11 genome*" (**10** out of 10)
- 2008 – 2012** - BA studies, Faculty of Biology, University of Belgrade, Study program: Molecular Biology and Physiology
- GPA: 97,6% (**9.76** out of 10)

### **Positions:**

- 07/2015:** **Assistant Researcher**, Institute of Physiology and Biochemistry - General Physiology and Biophysics Department, Faculty of Biology, University of Belgrade
- 04/2014:** **Junior Researcher**, Institute of Physiology and Biochemistry - General Physiology and Biophysics Department, Faculty of Biology, University of Belgrade

### **Participation in international projects:**

- Swiss National Science Foundation (SCOPES project), IZ73Z0\_152297, "Bioinformatics and modeling of bacterial immune systems – understanding control of CRISPR/Cas", 2014 -

### **Participation in national projects:**

- OI173052, "Bioinformatic promoter predictions and theoretical modeling of gene circuits in bacteria", Ministry of Science and Technology – Republic of Serbia, 2014 -

### Awards:

- 2016:** "Young scientist research award", awarded by the Faculty of Biology, University of Belgrade, Serbia, Sept 2016.
- 04/2014-02/2015:** *Scholarship for PhD students*, awarded by the Ministry of Education, Science and Technological Development of the Republic of Serbia
- 2013:** *Scholarship for best students on their final academic year of Bachelor, Master and integrated academic studies at faculties funded by the Republic of Serbia*, awarded by the Fund for Young Talents of the Republic of Serbia
- 2012:** *Scholarship of the German Academic Exchange Service (DAAD): "Practical course in Neurobiology – in vivo and in vitro physiology of neurons"*, Faculty of Biosciences, Pharmacy and Psychology, University of Leipzig, Germany
- 2010-2012:** *Scholarship for best students*, awarded by the City of Belgrade (awarded for three academic years)
- 2009:** *Scholarship for academic year 2009/2010*, awarded by the Ministry of Education, Science and Technological Development of the Republic of Serbia

### Publications:

- Guzina J. and Djordjevic M. "Mix-and-matching as a promoter recognition mechanism by ECF  $\sigma$  factors." BMC Evolutionary Biology **17**(S1) (2017):12.
- Guzina J., Stankovic T, Chen W, Djordjevic M, Zdobnov E, Djordjevic M, *Possible widespread role of CRISPR/Cas associated small RNAs in bacterial virulence: a bioinformatics study*, submitted by invitation to Frontiers in Microbiol. (2017) - invitation by Tania Venkova (Frontiers Associate Editor).
- Guzina J. and Djordjevic M, (2016). "Promoter recognition by ECF  $\sigma$  factors: analyzing DNA and protein interaction motifs." Journal of Bacteriology, **198**(14):1927-38.
- Guzina J. and Djordjevic M. (2015). "Inferring bacteriophage infection strategies from genome sequence: analysis of bacteriophage 7-11 and related phages." BMC Evolutionary Biology **15**:S1.
- Guzina J. and Djordjevic M. (2015). "Bioinformatics as a first-line approach for understanding bacteriophage transcription." Bacteriophage **5**(3): e1062588. (invited review paper)

### Conferences:

#### Oral presentations

- 08/2016** *Transcription initiation by alternative  $\sigma$  factors: revising the rigidity paradigm*, 10<sup>th</sup> International Multiconference: Bioinformatics of Genome Regulation and Structure/Systems Biology (BGRS 2016), Novosibirsk, Russia
- 06/2016** *Transcription initiation by alternative  $\sigma$  factors*, Belgrade Bioinformatics Conference (BelBi 2016), Belgrade, Serbia
- 01/2015** *Inferring bacteriophage infection strategies from genome sequence: analysis of bacteriophage 7-11 and related phages*, Bacteriophages 2015, London, UK
- 09/2013** *Bioinformatics analysis of gene expression strategies of bacterial viruses*, Theoretical Approaches to BioInformation Systems (TABIS), Belgrade, Serbia

### Poster presentations

**10/2015** *ECF  $\sigma$  factors: from stringency paradigm to significant mix-and-matching*, 6th European Conference on Prokaryotic and Fungal Genomics, PROKAGenomics 2015, Göttingen, Germany

**05/2014** *Biophysics based approach for inferring bacteriophage infection strategies*, Regional Biophysics Conference, RBC 2014, Smolenice, Slovakia

### Colloquia:

**03/2016** *"Biophysical Modeling and Bioinformatics"*, International Biophysics Week, Kolarac Foundation, Belgrade

**03/2015** *"Bioinformatics analysis of transcription regulation in bacteria and bacteriophages"*, Bioinformatics seminar, Faculty of Mathematics, University of Belgrade, Belgrade

### Teaching experience (Research Assistant):

- "Physics in Biology", BA studies – Faculty of Biology, University of Belgrade (Fall 2014, Fall 2015, Fall 2016)
- "Fundamentals of Systems Biology", BA studies – Faculty of Biology, University of Belgrade (Spring 2015, Spring 2016)
- "Bioinformatics", MA studies – Faculty of Biology, University of Belgrade (Fall 2014, Fall 2015, Fall 2016)

### Journal Papers Review (co-reviewed with PhD thesis advisor):

- Bioinformatics (Oxford Journals)
- Nucleic Acids Research (Oxford Journals)
- PLOS Computational Biology (PLOS Journals)
- PLOS One (PLOS Journals)

### Scientific Community Service:

- Member of the Local Organizing Committee of the "**Belgrade Bioinformatics Conference 2016**" – Belgrade, Serbia, 06/2016

### Society Membership:

- Member of the Serbian Biophysical Society