

# Curriculum Vitae Branislava Gemović

## PERSONAL INFORMATION

**Name:** Branislava Gemović  
**Date and place of birth:** 30.03.1982, Zemun, Serbia  
**Address:** Vršačka12, 11080 Zemun, Serbia  
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## CURRENT POSITION

**Position:** Research associate (since 2016)  
**Affiliation:** Center for Multidisciplinary Research and Engineering, Vinča Institute of Nuclear Sciences, Mike Petrovića Alasa 14-16, 11001 Belgrade, Serbia  
**Telephone:** +381 11 3408471  
**E-mail:** [gemovic@vin.bg.ac.rs](mailto:gemovic@vin.bg.ac.rs)

## EDUCATION

**Diploma/degree:** PhD, Biology  
**Year issued:** 2015  
**Dissertation:** Bioinformatics analysis of proteins involved in pathogenesis of myeloid malignancies  
**Institution:** Faculty of Biology, University of Belgrade, Belgrade, Serbia

**Diploma/degree:** MA, Biology  
**Year issued:** 2008  
**Title of master thesis:** Analysis of primary structure of protein haemagglutinin 1 of Influenza virus H5N1, isolated in 2008  
**Institution:** Faculty of Biology, University of Belgrade, Belgrade, Serbia

## COURSES AND TRAININGS

**2017.** Training “Knowledge Commons and Tools interoperability”, COST Action CA15205, INESC-ID - Technical University of Lisbon, Lisbon, Portugal  
**2016.** Training school "*In vitro* evaluation of compounds with anticancer potential", COST Action CM1407, Institute for Biological Research Siniša Stanković, Belgrade, Serbia  
**2013.** Course “Stat 2.1x – Introduction to statistics: Descriptive statistics”, BerkelyX, <https://www.edx.org/>  
**2013.** Course „Stat 2.2.x – Introduction to statistics: Probability”, BerkelyX, <https://www.edx.org/>  
**2012.** Bioinformatics training school “RNA-seq data analysis in R”, EuGESMA COST Action (BM0801), Modena, Italy  
**2010.** Bioinformatics training school “Microarray data analysis using R and BioConductor”, EuGESMA COST Action (BM0801), Barcelona, Spain  
**2009.** Course “New drugs research – current approaches”, Faculty of Pharmacology, Belgrade, Serbia  
**2009.** Workshop “VEGA ZZ a versatile toolkit for drug design”, Faculty of Chemistry, Belgrade, Serbia

## GRANTS AND AWARDS

**2016.** Stanka Romac Foundation award for the best PhD thesis in the research areas of human molecular genetics and biomedicine for 2014 – 2016  
**2014.** FEBS grant for participation in FEBS/EMBO 2014 Conference, Paris, France  
**2012.** FEBS grant for participation in 22nd IUBMB & 37th FEBS Congress, Seville, Spain

**2010.** Grant for Short Term Scientific Mission (COST Action BM0801) for research “Analysis of Wilms’ Tumor 1 (WT1) mutations in Acute Myeloid Leukemia (AML)” in the Center for Hemato-Oncology, Barts Cancer Institute, Queen Mary University of London, under supervision by dr Jude Fitzgibbon.

## RESEARCH EXPERIENCE

**Project:** GREEKC: Gene Regulation Ensemble Effort for the Knowledge Commons (COST Action CA15205)

**Period:** Since 2017

**Position:** MC Member

**Funded by:** European Cooperation in Science and Technology

**Project:** Application of EIIP/ISM bioinformatics platform in development of new therapeutic targets and potential therapeutic molecules (Grant No. 173001)

**Period:** Since 2010

**Position:** Research assistant (2010-2015), Research associate (2016-onward)

**Funded by:** Ministry of Education, Science and Technological Development of Republic of Serbia

**Project:** EuGESMA: European Genomics and Epigenomics Study on MDS and AML (COST Action BM0801)

**Period:** 2009-2013

**Position:** Junior researcher (2009-2010), Research assistant (2010-2013)

**Funded by:** European Cooperation in Science and Technology

**Project:** Identification and characterization of cellular cofactors of HIV and their possible application in prevention and therapy (Grant No. 143001)

**Period:** 2009-2010

**Position:** Junior researcher

**Funded by:** Ministry of Education, Science and Technological Development of Republic of Serbia

**Project:** Array Technologies for BSL3 and BSL4 pathogens (COST Action B28)

**Period:** 2009

**Position:** Junior researcher

**Funded by:** European Cooperation in Science and Technology

## LIST OF PUBLICATIONS

### Peer-review articles:

1. **Gemovic B**, Sumonja N, Davidovic R, Perovic V, Veljkovic N. Mapping of Protein-Protein Interactions: Web-Based Resources for Revealing Interactomes. *Curr Med Chem*. 2018 Feb 13. doi: 10.2174/0929867325666180214113704.
2. Perovic V, Sumonja N, **Gemovic B**, Toska E, Roberts SG, Veljkovic N. 2017. TRI\_tool: a web-tool for prediction of protein-protein interactions in human transcriptional regulation. *Bioinformatics*. 33(2): 289-91. (citations 09/07/2018, bez autocitata: 2)
3. Jiang Y, Oron TR, Clark WT, ..., **Gemovic B**, ..., Radivojac P. 2016. An expanded evaluation of protein function prediction methods shows an improvement in accuracy. *Genome Biol*. 17(1): 184. (citations 09/07/2018, bez autocitata: 83)
4. Srdic-Rajic, T, Nikolic, K, Cavic, M, Djokic, I, **Gemovic, B**, Perovic, V, & Veljkovic, N. 2016. Rilmenidine suppresses proliferation and promotes apoptosis via the mitochondrial pathway in human leukemic K562 cells. *Eur J Pharm Sci*. 81: 172-80. (citations 09/07/2018, bez autocitata: 3)
5. Glišić S, Radošević D, Perović V, Šumonja N, **Gemović B**, Veljković N, Dopsaj M. 2016. Role of genetic markers in sport and recreational physical activity. *Fizička kultura*. 70(1): 5-13.

6. Sencanski, M, Radosevic, D, Perovic, V, **Gemovic, B**, Stanojevic, M, Veljkovic, N, & Glisic, S. 2015. Natural products as promising therapeutics for treatment of influenza disease. *Curr Pharm Des.* 21(38): 5573-88. (citations 09/07/2018, bez autocitata: 5)
7. Vujicić AD, **Gemović B**, Veljković V, Glisić S, Veljković N. 2014. Natural autoantibodies in healthy neonatals recognizing a peptide derived from the second conserved region of HIV-1 gp120. *Vojnosanit Pregl.* 71(4): 352-61. (citations 09/07/2018, bez autocitata: 1)
8. Nikolic K, Veljkovic N, **Gemovic B**, Srdic-Rajic T, Agbaba D. 2013. Imidazoline-1 receptor ligands as apoptotic agents: pharmacophore modeling and virtual docking study. *Comb Chem High Throughput Screen.* 16(4): 298-319. (citations 09/07/2018, bez autocitata: 5)
9. **Gemovic B**, Perovic V, Glisic S, Veljkovic N. 2013. Feature-based classification of amino acid substitutions outside conserved functional protein domains. *ScientificWorldJournal.* 2013: 948617. (citations 09/07/2018, bez autocitata: 3)
10. Glisic S, Veljkovic N, Jovanovic Cupic S, Vasiljevic N, Prljic J, **Gemovic B**, Perovic V, Veljkovic V. 2012. Assessment of hepatitis C virus protein sequences with regard to interferon/ribavirin combination therapy response in patients with HCV genotype 1b. *Protein J.* 31(2): 129-36. (citations 09/07/2018, bez autocitata: 7)

### Conference proceedings:

1. **Gemović B**, Davidović R, Šumonja N, Perović V, Veljković N. 2018. Function Annotation Algorithm Based on Sequence Spectral Features: Evaluation on Human Transcription Factor. *Belgrade BioInformatics Conference 2018 (BelBi 2018)*, Belgrade, Serbia, June 18-22 2018. In: *Biologia Serbica*, 2018, 40(1): 108.
2. Davidović R, **Gemović B**, Veljković N, Perović V. 2018. DiNGO: stand-alone application for GO and HPO term enrichment. *Belgrade BioInformatics Conference 2018 (BelBi 2018)*, Belgrade, Serbia, June 18-22 2018. In: *Biologia Serbica*, 2018, 40(1): 70.
3. Perovic V, Davidovic R, **Gemovic B**, Sumonja N, Veljkovic N. 2018. Prediction of Human Phenotype Ontology Terms For Intrinsically Disordered Proteins. *Belgrade BioInformatics Conference 2018 (BelBi 2018)*, Belgrade, Serbia, June 18-22 2018. In: *Biologia Serbica*, 2018, 40(1): 90.
4. Sumonja N, Vukovic A, Nonkovic N, **Gemovic B**, Nikolic Z, Savic-Pavicevic D, Veljkovic N, BrajuskoVIC G, Perovic V. 2018. Higher-order genetic interactions in prostate cancer and benign prostatic hyperplasia. *Belgrade BioInformatics Conference 2018 (BelBi 2018)*, Belgrade, Serbia, June 18-22 2018. In: *Biologia Serbica*, 2018, 40(1): 96.
5. **Gemović B**, Davidović R, Stanković K, Šumonja N, Perović V, Veljković N. 2018. Function Annotation Algorithm Based on Sequence Spectral Features: Application on Human Transcription Factors. *The 11th International Biocuration Conference (IBC)*, Shanghai, China, April 8-11, 2018.
6. Perović V, **Gemović B**, Veljković V, Glišić S, Veljković N. 2017. Annotation of the functional impact of coding genetic variants. *CoMBoS 2017*, Belgrade, Serbia, September 20-22, 2017. In: *Biologia Serbica*, 2017, 39(1): 74-82.
7. **Gemović B**, Davidović R, Šumonja N, Veljković N, Perović V. 2017. Contribution of features based on sequence, predicted PPIs and GO similarities to the prediction of gene-HPO associations. *ISMB/ECCB 2017*, Prague, Czech Republic, July 21-25, 2017.
8. Perovic V, Mihaljevic Lj, **Gemovic B**, Veljkovic N. 2016. A web-based tool for prediction of effects of single amino acid substitutions outside conserved functional protein domains. *Belgrade BioInformatics Conference 2016*, Belgrade, Serbia, June 20-24<sup>th</sup>, 2016.
9. **Gemovic B**, Perovic V, Glisic S, Veljkovic N. 2014. Predicting protein function from sequence and co-expression: preliminary results for breast cancer molecular markers. *The FEBS/EMBO 2014 Conference*, Paris, France, 30 August – 4 September, 2014. In *FEBS J.* 281(s1): 633.
10. Perović V, Veljković N, **Gemović B**, Radošević D, Glišić S. 2014. Bioinformatics criterion for selection of candidate dual cr5/cxcr4 inhibitors. *GPCR Spring Conference 2014*, Barcelona, Spain, April 28-30<sup>th</sup>, 2014.
11. **Gemović B**, Perović V, Glišić S, Veljković N. 2013. Can We Use Standard Tools to Predict Functional Effects of Missense Gene Variations Outside Conserved Domains? TET2 Example. *The 2<sup>nd</sup> International Conference “Theoretical Approaches to BioInformation Systems” (TABIS. 2013)*. p.65.

12. Veljkovic N, **Gemovic B**, Glisic S, Perovic V, Veljkovic V. 2012. Analyses of gene variations in coding regions of molecular markers in myeloid neoplasms: web-application for TET2 gene. XI European Conference on Computational Biology – ECCB 2012, Basel, Switzerland, 9-12 September, 2012.
13. **Gemovic B**, Perovic V, Glisic S, Veljkovic N. 2012. Bioinformatics approach to protein-protein interactions of WT1 isoforms. XXII IUBMB & XXXVII FEBS Congress, Seville, Spain, 4-9 September, 2012. In FEBS J. 279: 295.
14. Agbaba D, Nikolic K, Veljkovic N, **Gemovic B**, Srdic-Rajic T. 2012. 3D-QSAR and Virtual Docking Study of Agonists and Antagonists at Imidazoline-1 Receptor. XXII International Symposium on Medicinal Chemistry – ISMC 2012, Berlin, Germany, 2-6 September, 2012.

## **PROFESSIONAL ASSOCIATIONS MEMBERSHIP**

- International Society for Biocuration
- International Society for Computational Biology
- Serbian Biochemical Society
- Society of Researchers Vinča

## **EXPERTISE AND FIELDS OF INTERESTS**

### **Scientific Interests:**

Computational Biology; Protein Sequence Analysis; Cancer; Functional Effects of Gene Variants; Epigenetics; Drug Targets; Protein Function Annotation; Gene Ontology; Human Phenotype Ontology; Bio-Statistics; Big Data; Gene Expression; Enrichment Analysis; Protein-Protein Interactions; Domain Annotation; Transcription Factors.

### **Organization of scientific meetings**

**2016.** COST BM1405 “Non-globular Proteins in Molecular Physiopathology”

**2012.** COST BM0801 "EUGESMA - The European Genomic and Epigenetic Study on MDS and AML"

**2009.** COST B28 "Array technologies for BLS3 and BSL4 pathogens"

### **Experience in education and/or promotion of science:**

- Supervisor of the gold medalist at the International Conference of Young Scientists (ICYS 2018) (student Katarina Stankovic) and silver medalist at ICYS 2017 (student Emilija Jovanovic)
- Supervisor of the winning research at the National competition of high-school students (2013: student Marko Tumbas; 2017: student Emilija Jovanovic; 2018: student Katarina Stankovic)
- Organizer and participant of specific science festival “Open doors of the Vinča Institute” (2010-2017)
- Coordinator of the scientific workshop for high-school students (2013-2014)
- Participant in the project for promotion of science "Vinca's summer scene" (2014)

### **Languages:**

- English
- German (elementary)

### **Other information:**

- Member of MENSA Serbia
- B category driving license
- Hobbies: reading, mountaineering, beer tasting