Vladimir R. Perović Ph. D.

Computer Scientist
Belgrade, Serbia
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Education

2013	PhD in Computer Science, Faculty of Mathematics, University of Belgrade, Serbia (10.00/10.00) Dissertation title: "*Development of multifunctional bioinformatics platform based on electron-ion interaction potential of biological molecules*"
1995-2001	BS in Mathematics, Faculty of Mathematics, University of Belgrade, Serbia, Computer Science and Informatics (9.34/10.00)
1991-1995	Secondary School "*Mathematical Grammar School*", Belgrade, Serbia

Professional Experience

2015-Present	Research Associate, Institute of Nuclear Sciences VINCA, Center for Multidisciplinary Research
2006-2015	Research Assistant, Institute of Nuclear Sciences VINCA
2002-2006	Research Trainee, Institute of Nuclear Sciences VINCA

Projects

2015-2018	"*NGP-NET: Non-globular proteins - from sequence to structure, function and application in molecular physiopathology*" COST BM1405
2012-2016	"*GLISTEN: GPCR-Ligand Interactions, Structures, and Transmembrane Signaling: a European Research Network*", COST CM1207
2011-2014	"*Application of the EIIP/ISM bioinformatics platform in discovery of novel therapeutic targets and potential therapeutic molecules*" Ministry of Sciences Serbia no. 173001
2010-2012	"*EUGESMA – The European Genomic and Epigenetic Study on MDS and AML*" COST BM0801, Working Group for Bioinformatics
2006-2010	"*Identification and characterization of HIV-1 host factors*" Ministry of Sciences Serbia no. 143001
2005-2010	"*Array Technologies for BSL 3 and BSL 4 Pathogens*", COST B28.
2004-2007	"*TRIOH - Targeting Replication and Integration of HIV*", EU FP6, Integrated project, LSHG-CT-2003-503480

Expertise and Fields of Interest

Bioinformatics; Phylogenetic Analysis; Drug Discovery; Protein Function Prediction, Sequence Analysis; Digital Signal Processing, Fourier Transform; Data Mining; Hierarchical Clustering; Fractals and Fractal Analysis; Lexical Analyzers, Parsers, Regular Expressions, Finite-State Automata; Algorithmics; Evolutionary Algorithms, Machine Learning; Game Development, Web Design, Web Services Development, Mobile Application Development; Virtual Reality, Augmented Reality.

Skills

Programming languages
C, C++, Java, C#, Fortran, Pascal, PHP, JavaScript, ActionScript, AWK, CSS, HTML, R, Python, XSLT, UML, XML, SVG, SQL, PROLOG, LISP, DirectX/DirectDraw/CDX.

Relational databases
IBM-DB2, MySQL, SQLight.

Integrated development environments
MS Visual Studio 6.0, Flash, JBuilder, C++ Builder, Delphi, Dreamweaver, J2ME, J2SE, Android Studio, Unity Game Engine, R Studio, PyCharm.

Other
English language (fluent), Driving license category B

Selected Publications

Full publication list is available at: *http://www.researchgate.net/profile/Vladimir_Perovic*

1. **Perovic V**, Sumonja N, Marsh L, Radovanovic S, Vukicevic M, Roberts S, Veljkovic N. *IDPpi: Protein-Protein Interaction Analyses of Human Intrinsically Disordered Proteins*. Scientific Reports. 2018; 8(1): 10563.

2. **Perovic V**, Sumonja N, Gemovic B, Toska E, Roberts SG, Veljkovic N. *TRI_tool: a web-tool for prediction of protein-protein interactions in human transcriptional regulation*. Bioinformatics. 2017; 33(2):289-91.

3. Nicolson GL, Veljkovic V, Glisic S, **Perovic V**, Veljkovic N. *Pomegranate (Punica granatum): a natural source for the development of therapeutic compositions of food supplements with anticancer activities based on electron acceptor molecular characteristics*. Functional Foods in Health and Disease. 2016; 6(10):769-87.

4. Veljkovic V, Goeijenbier M, Glisic S, Veljkovic N, **Perovic VR**, Sencanski M, Branch DR, Paessler S. *In silico analysis suggests repurposing of ibuprofen for prevention and treatment of EBOLA virus disease*. F1000 Research. 2015; 4:104.

5. Veljkovic V, Glisic S, Veljkovic N, Bojic T, Dietrich U, **Perovic VR**, Colombatti A. *Influenza vaccine as prevention for cardiovascular diseases: Possible molecular mechanism*. Vaccine. 2014; 32(48):6569-75. doi: 10.1016/j.vaccine.2014.07.007.

6. **Perovic VR**, Muller CP, Niman HL, Veljkovic N, Dietrich U, Tosic DD, Glisic S, Veljkovic V. *Novel Phylogenetic Algorithm to Monitor Human Tropism in Egyptian H5N1-HPAIV Reveals Evolution toward Efficient Human-to-Human Transmission*. PloS one. 2013; 8(4):e61572.

7. **Perovic VR**. *Novel algorithm for phylogenetic analysis of proteins: application to analysis of the evolution of H5N1 influenza viruses*. Journal of Mathematical Chemistry. 2013; 51(8): 2238-55.

8. Raicevic S, **Perovic V**, Zouboulis AI. *Theoretical assessment of phosphate amendments for stabilization of (Pb+Zn) in polluted soil*. Waste Management. 2009; 29(5): 1779-84.

9. Glisic S, Arrigo P, Alavantic D, **Perovic V**, Prljic J, Veljkovic N. *Lipoprotein lipase: A bioinformatics criterion for assessment of mutations as a risk factor for cardiovascular disease*. Proteins: Structure, Function and Bioinformatics. 2008; 70(3):855-62.

10. Veljkovic N, Glisic S, Prljic J, **Perovic V**, Veljkovic V. *Simple and General Criterion for "In Silico" Screening of Candidate HIV Drugs*. Curr Pharm Biotechnol. 2013; 14:89.

Organization of Scientific Meetings

14-18 Sep. 2016, Belgrade	COST BM1405 "*Non-globular Proteins in Molecular Physiopathology*"
28 October 2015, Belgrade	"*Translational Cancer Research: Italy meets Serbia*"
26-28 October 2015, Belgrade	COST CM1307 "*Medicinal Chemistry in Parasitology*"
22-24 April 2012, Belgrade	COST BM0801 "*EUGESMA - The European Genomic and Epigenetic Study on MDS and AML*"
20-24 April 2009, Belgrade	COST B28 "*Array technologies for BLS3 and BSL4 pathogens*"

Technical Solution (Software)

"WasteMatrix-3.0" software for the optimization of the process of immobilization of metals by solid matrix, Copyright 2007 Vladimir Perovic and Slavica Raicevic, Yugoslav Authors Agency - Authors Agency for Serbia, Register No. S-45/07, July 29, 2007.

Patent Application

Alfonso Colombatti, Roberto Doliana, Veljko Veljkovic, Nevena Veljkovic, Sanja Glisic, Vladimir Perovic, *Peptide agonists of toll-like receptor 5 ligand and methods of use*, Patent Application, PN2014A000022, PCT/EP2015/059424

Honors and Awards

Letter of appreciation for Doctoral thesis, Institute VINCA, 2014
The best student of the Generation, elementary school, 1991
Certificate of appreciation at the Federal Mathematics Competition in Yugoslavia, 1991
3rd place at the Republic Mathematics Competition of Serbia, 1991
Certificate of appreciation at the Republic Mathematics Competition of Serbia, 1990

Hobbies

Argentine tango, skiing, HDR photography, playing guitar.