**MILICA KECKAREVIC MARKOVIC**

***Curriculum Vitae***

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**PERSONAL DETAILS**

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**CURRENT POSITION**

2012 Assistant Professor, University of Belgrade, Faculty of Biology, Department for Biochemistry and Molecular Biology

**EDUCATION**

2010 PhD in Biological Sciences, Faculty of Biology, University of Belgrade, doctoral thesis: "Molecular Genetics of Hereditary Motor and Sensory Neuropathy Type 1 (HMSN1) in the Population of Serbia".

2003 MSc in Biological Sciences, Faculty of Biology, University of Belgrade, MSc thesis: ''Molecular Genetics of Huntington's Disease Phenocopies'').

2000 BSc in Molecular Biology and Physiology, Faculty of Biology, University of Belgrade, BSc thesis: "Detection of deletions in the Gene for Dystrophin in Patients with Duchenne / Becker Muscular Dystrophy".

**RESEARCH EXPERIENCE**

Analyses of mutations associated with neurological, psychiatric and neuromuscular diseases, with respect to expansions of micro- and minisatelites. Methodology of STR analyses, establisment of protocols for molecular genetic diagnostic of various inherited diseases. Areas of interest: autosomal dominant spinocerebellar ataxias (ADCA), Fridreich`s ataxia, Huntington`s disease, dentatorubral-palidoluysian atrophy, miotonic distrophy type 1, Duchenne/Becker muscular dystrophy, spinal muscular atrophy, amiotrophic lateral sclerosis, hereditary motor and sensory neuropathies, fragile X syndrome, progressive mioclonal epilepsies. Identfication of mutations, tracking of inheritance, correlation with phenotype.

Forensic analyses of human and non-human DNA. Analyses of case-work samples. STR analyses of autosomal and Y chromosomal loci, sequencing of mitochondrial DNA and haplogroup analyses. Proficient in forensic data interperation and statistics in forensic DNA analyses: mixed samples and kinship analyses. Analyses of challenging samples: bones, contact traces. Identification of different animal and plant species.

**PEER-REVIEWED PUBLICATIONS**

Mihajlovic M, Tanasic V, Markovic MK, Kecmanovic M, Keckarevic D. Distribution of Y-chromosome haplogroups in Serbian population groups originating from historically and geographically significant distinct parts of the Balkan Peninsula. Forensic Sci Int Genet. 2022 Nov;61:102767. doi: 10.1016/j.fsigen.2022.102767. Epub 2022 Aug 17.

Cokic VP, Kecmanovic M, Zgonjanin Bosic D, Jakovski Z, Veljkovic A, Katic S, Keckarevic Markovic M, Keckarevic D. 2019. [A comprehensive mutation study in wide deep-rooted R1b Serbian pedigree: mutation rates and male relative differentiation capacity of 36 Y-STR markers.](https://www.ncbi.nlm.nih.gov/pubmed/31082622) Forensic Sci Int Genet. 2019. doi: 10.1016/j.fsigen.2019.04.007.

Petrovic V, Kecmanovic M, Keckarevic Markovic M, Keckarevic D. 2018. Assessment of mutation rates for PPY23 Y chromosome STR loci in Serbian father-son pairs. Forensic Sci Int Genet. doi: 10.1016/j.fsigen.2018.11.014.

Andrejevic M, Markovic MK, Bursac B, Mihajlovic M, Tanasic V, Kecmanovic M, Keckarevic D. 2019. [Identification of a broad spectrum of mammalian and avian species using the short fragment of the mitochondrially encoded cytochrome b gene.](https://www.ncbi.nlm.nih.gov/pubmed/30806911) Forensic Sci Med Pathol. doi: 10.1007/s12024-019-00096-4.

Radojicic V, Keckarevic Markovic M, Puac F, Kecmanovic M, Keckarevic D. (2018) [Comparison of different methods of DNA recovery and PCR amplification in STR profiling of casings-a retrospective study.](https://www.ncbi.nlm.nih.gov/pubmed/29536195) Int J Legal Med, 132(6):1575-1580. doi: 10.1007/s00414-018-1812-x.

Cirovic N, Kecmanovic M, Keckarevic D, Keckarevic Markovic M. 2017. [Differentiation of Cannabis subspecies by THCA synthase gene analysis using RFLP.](https://www.ncbi.nlm.nih.gov/pubmed/28772109) J Forensic Leg Med.;51:81-84. doi: 10.1016/j.jflm.2017.07.015.

[Kecmanovic M](http://www.ncbi.nlm.nih.gov/pubmed/?term=Kecmanovi%C4%87%20M%5BAuthor%5D&cauthor=true&cauthor_uid=25683376), [Jovic N](http://www.ncbi.nlm.nih.gov/pubmed/?term=Jovi%C4%87%20N%5BAuthor%5D&cauthor=true&cauthor_uid=25683376), [Keckarevic-Markovic M](http://www.ncbi.nlm.nih.gov/pubmed/?term=Keckarevi%C4%87-Markovi%C4%87%20M%5BAuthor%5D&cauthor=true&cauthor_uid=25683376), [Keckarevic D](http://www.ncbi.nlm.nih.gov/pubmed/?term=Keckarevi%C4%87%20D%5BAuthor%5D&cauthor=true&cauthor_uid=25683376), [Stevanovic G](http://www.ncbi.nlm.nih.gov/pubmed/?term=Stevanovi%C4%87%20G%5BAuthor%5D&cauthor=true&cauthor_uid=25683376), [Ignjatovic P](http://www.ncbi.nlm.nih.gov/pubmed/?term=Ignjatovi%C4%87%20P%5BAuthor%5D&cauthor=true&cauthor_uid=25683376), [Romac S](http://www.ncbi.nlm.nih.gov/pubmed/?term=Romac%20S%5BAuthor%5D&cauthor=true&cauthor_uid=25683376). 2016. Clinical and genetic data on Lafora disease patients of Serbian/Montenegrin origin. [Clin Genet.](http://www.ncbi.nlm.nih.gov/pubmed/25683376) 89(1):104-8.doi: 10.1111/cge.12570.

Keckarevic Markovic M, Gagic M, Kecmanovic M, Keckarevic D, Mladenovic J, Dackovic J, Milic-Rasic V, Romac S. 2016. Analysis of PMP22 duplication and deletion usinga panel of six dinucleotide tandem repeats. Clin Chem Lab Med. doi:10.1515/cclm-2015-0602.

## Kecmanovic M, Keckarevic-Markovic M, Keckarevic D, Stevanovic G, Jovic N, Romac S. 2016. [Genetics of Lafora progressive myoclonic epilepsy: current perspectives.](https://www.ncbi.nlm.nih.gov/pubmed/27194917) Appl Clin Genet. 9:49-53.

Kecmanovic M, Ristic AJ, Ercegovac M, Keckarevic-Markovic M, Keckarevic D, Sokic D, Romac S. 2014. [A Shared Haplotype Indicates a Founder Event in Unverricht-Lundborg Disease Patients from Serbia.](http://www.ncbi.nlm.nih.gov/pubmed/23883076) Int J Neurosci. 24(2):102-9.

Keckarevic Markovic MP, Dackovic J, Mladenovic J, Milic-Rasic V, Kecmanovic M, Keckarevic D, Romac S. 2013. [An algorithm for genetic testing of Serbian patients with demyelinating Charcot-Marie-Tooth.](http://www.ncbi.nlm.nih.gov/pubmed/23163601) Genet Test Mol Biomarkers, 17(1):85-7.

Kecmanovic M, Jovic N, Cukic M, Keckarevic-Markovic M, Keckarevic D, Stevanovic G, Romac S. 2013. [Lafora disease: severe phenotype associated with homozygous deletion of the NHLRC1 gene.](http://www.ncbi.nlm.nih.gov/pubmed/23317923) J Neurol Sci, 325(1-2):170-3.

Keckarevic D, Stevic Z, Keckarevic-Markovic M, Kecmanovic M, Romac S. 2012. [A novel P66S mutation in exon 3 of the SOD1 gene with early onset and rapid progression.](http://www.ncbi.nlm.nih.gov/pubmed/22214314) Amyotroph Lateral Scler. 13(2):237-40.

Mladenovic J, Milic-Rasic V, Keckarevic-Markovic M, Romac S, Todorovic S, Rakocevic-Stojanovic V, Kisic-Tepavcevic D, Hofman A, Pekmezovic T. 2011. Epidemiology of Charcot-Marie-Tooth Disease in the Population of Belgrade, Serbia. Neuroepidemiology 36(3):177-82.

Kecmanovic M, Dobricic V, Dimitrijevic R, Keckarevic D, Savic Pavicevic D, Keckarevic-Markovic M, Ivkovic M, Romac S. 2010. Schizophrenia and apolipoprotein E gene polymorphisms in Serbian population. Int J Neurosci 120(7):502-6.

Dimitrijevic R, Cadez I, Keckarevic-Markovic M, Keckarevic D, Kecmanovic M, Dobricic V, Savic Pavicevic D, Brajuskovic G, Romac S. 2010. Polymorphisms of the prion protein gene (PRNP) in a Serbian population. Int J Neurosci, 120(7):496-501.

Keckarevic-Markovic M, Milic-Rasic V, Mladenovic J, Dackovic J, Kecmanovic M, Keckarevic D, Savic Pavicevic D, Romac S. 2009. Mutational analysis of GJB1, MPZ, PMP22, EGR2, and LITAF/SIMPLE in Serbian Charcot-Marie-Tooth patients. J Peripher Nerv Sys 4(2):125-36.

Kecmanovic M, Ristic AJ, Sokic D, Keckarevic-Markovic M, Vojvodic N, Ercegovac M, Jankovic S, Keckarevic D, Savic Pavicevic D, Romac S. 2009. Coexistence of Unverricht-Lundborg disease and congenital deafness: molecular resolution of a complex comorbidity. Epilepsia 50(6):1612-5.

Jankovic N, Kecmanovic M, Dimitrijevic R, Keckarevic Markovic M, Dobricic V, Keckarevic D, Savic Pavicevic D, Romac S. 2008. H[D phenocopies - possible role of Saitohin gene.](http://www.ncbi.nlm.nih.gov/pubmed/18300012?itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum&ordinalpos=4) Int J Neurosci 118(3):391-7.

## Dackovic J, Keckarevic-Markovic M, Komazec Z, Rakocevic-Stojanovic V, Lavrnic D, Stevic Z, Ribaric K, Romac S, Apostolski S. 2008. [Hereditary motor and sensory neuropathy Lom type in a Serbian family.](http://www.ncbi.nlm.nih.gov/pubmed/19364063?itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum&ordinalpos=2) Acta Myol. 27:59-62.

Stevanovic M, Dobricic V, Keckarevic D, Perovic A, Savic-Pavicevic D, Keckarevic-Markovic M, Jovanovic A, Romac S. 2007. Human Y-specific STR haplotypes in population of Serbia and Montenegro. Forensic Sci Int 171(2-3):216-21.

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[Dragasevic NT, Culjkovic B, Klein C, Ristic A, Keckarevic M, Topisirovic I, Vukosavic S, Svetel M, Kock N, Stefanova E, Romac S, Kostic VS.](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=ShowDetailView&TermToSearch=16149098&ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum) 2006. Frequency analysis and clinical characterization of different types of spinocerebellar ataxia in Serbian patients. Mov Disord. 21(2):187-91.

[Keckarevic D](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&term=%22Keckarevic+D%22%5BAuthor%5D), [Savic D](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&term=%22Savic+D%22%5BAuthor%5D), [Keckarevic M](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&term=%22Keckarevic+M%22%5BAuthor%5D), [Stevanovic M](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&term=%22Stevanovic+M%22%5BAuthor%5D), [Tarasjev A](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&term=%22Tarasjev+A%22%5BAuthor%5D), Culjkovic B, [Đarmati](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&term=%22Darmati+A%22%5BAuthor%5D) A, [Vukosavic S](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&term=%22Vukosavic+S%22%5BAuthor%5D), [Romac S](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&term=%22Romac+S%22%5BAuthor%5D). 2005. Population data on 14 STR loci from population of Serbia and Montenegro (new and renewed data). Forensic Sci Int 151(2-3):315-6.

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Savic D, Topisirovic I, Keckarevic M, Keckarevic D, Major T, Culjkovic B, Stojkovic O, Rakocevic-Stojanovic V, Mladenovic J, Todorovic S, Apostolski S, Romac S. 2001. Is the 31 CAG repeat allele of the spinocerebellar ataxia 1 (SCA1) gene locus non-specifically associated with trinucleotide expansion diseases? Psychiatr Genet. 11:201-205.

Romac S, Culjkovic B, Vukosavic S, Stojkovic O, Savic D, Keckarevic D, Zamurovic N, Major T, Keckarevic M, Topisirovic I. 2000. Dynamic mutations as a cause of hereditary neurological and psichiatric diseases. Jugoslovenska medicinska biohemija 10:1-7.