

Aleksandra Nikolic

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• WORK EXPERIENCE

2021 – CURRENT Belgrade, Serbia **FULL RESEARCH PROFESSOR** INSTITUTE OF MOLECULAR GENETICS AND GENETIC ENGINEERING, UNIVERSITY OF BELGRADE

2016 – 2021 Belgrade, Serbia **ASSOCIATE RESEARCH PROFESSOR** INSTITUTE OF MOLECULAR GENETICS AND GENETIC ENGINEERING, UNIVERSITY OF BELGRADE

2010 – 2016 Belgrade, Serbia **ASSISTANT RESEARCH PROFESSOR** INSTITUTE OF MOLECULAR GENETICS AND GENETIC ENGINEERING, UNIVERSITY OF BELGRADE

2002 – 2010 Belgrade, Serbia **RESEARCH ASSISTANT** INSTITUTE OF MOLECULAR GENETICS AND GENETIC ENGINEERING, UNIVERSITY OF BELGRADE

2000 – 2002 Belgrade, Serbia **POSTGRADUATE FELLOW** MINISTRY OF SCIENCE OF THE REPUBLIC OF SERBIA

EDUCATION AND TRAINING

1994 – 2000 Belgrade, Serbia B.SC. IN MOLECULAR BIOLOGY AND PHYSIOLOGY Faculty of Biology, University of Belgrade

2000 – 2002 Belgrade, Serbia

M.SC. IN MOLECULAR GENETICS AND GENETIC ENGINEERING Faculty of Biology, University of Belgrade

2002 – 2010 Belgrade, Serbia PH.D. IN MOLECULAR GENETICS AND GENETIC ENGINEERING Faculty of Biology, University of Belgrade

ADDITIONAL INFORMATION

PROJECTS

2021 - 2024

Evaluation of AKR1B1 expression in the stromal compartment of colorectal tumors (STROMAKR), project of the Serbian-Turkish bilateral scientific collaboration, coordinator

2022 – 2024 ScienceSCool, Researchers' Night Project (101061631), WP leader

2020 - 2022

SENSOGENE - Cancer biosensors based on gene regulatory elements, Program for excellent projects of young researchers (PROMIS), Science Fund of the Republic of Serbia, principal investigator

2019 - 2022

Molecular basis of the response to chemoradiotherapy in rectal cancer, strategic project of the Fund for Scientific Research of the Serbian Academy of Sciences and Arts (02-2019), WP leader

2018 - 2022

Identifying Biomarkers Through Translational Research for Prevention and Stratification of Colorectal Cancer (TRANSCOLONCAN), COST Action CA17118, management committee member

2016 - 2020

Diagnosis, monitoring and prevention of exposure-related noncommunicable diseases (DiMoPEx), COST Action CA15129, management committee member

2011 - 2019

Complex diseases as a model system for phenotype modulation – structural and functional analysis of molecular biomarkers, Ministry of Education and Science, Republic of Serbia (173008), WP leader

2018

Molecular sensor for malignancy screening, coordinator, project of the Proof of Concept Program within ERASMUS+ project IF4TM, European Commission, coordinator

2013 - 2017

Cooperation Studies on Inherited Susceptibility to Colorectal Cancer (EuCOLONGENE), COST Action BM1206, management committee member Write here the description...

2014 - 2015

MMP9 gene polymorphisms as modulators of treatment response in asthma, project of the Serbian-Slovenian bilateral scientific collaboration, coordinator

2013

SCIMFONICOM 2.013, Researchers' Night Project (FP7-609724), coordinator

2012

SCIMFONICOM, Researchers' Night Project (FP7-316471), coordinator

2011 **PENIEEVED**

RENIFEVER, Researchers' Night project (FP7-287432), WP leader

PUBLICATIONS

https://orcid.org/0000-0003-3420-3896

RESEARCH INTERESTS

Alternative gene promoters

Activity in different cellular and physiological contexts and interactions with transcriptional regulators and small RNAs

Non-coding RNAs

Structure and function, interaction partners, expression in different cellular and physiological contexts and role in carcinogenesis-related processes

5'-untranslated regions (5'-UTR)

Expression profile of transcripts with different 5'-UTRs in different cellular and physiological contexts and interactions with translational regulators and microRNAs

TGFB signaling pathway

Structure and function of alternative promoters and 5'-UTR genes encoding signaling pathway members, interaction of mRNA with microRNA and characterization of functional variants

Response to chemoradiotherapy

Characterization of molecular mechanisms underlying the complete pathological response and chemoradioresistance

MEMBERSHIPS

Serbian Association for Cancer Research (SACR) European Association for Cancer Research (EACR)

TEACHING AND MENTORING

2022

Mentor of the defended PhD thesis "The role of microRNAs involved in regulation of TGFB signaling pathway in metastatic colorectal cancer - functional analysis and response to therapy"", Jovana Despotovic, Faculty of Biology, University of Belgrade

2018

Mentor of the defended PhD thesis "ADRB2 gene polymorphisms and salbutamol responsiveness in Serbian children with asthma", Nevena Jovicic, Faculty of Medicine, University of Belgrade

2017

Mentor of the defended PhD thesis "Analysis of TGFB1 gene promoter variants as risk factors and modulators of response to therapy in asthma", Sandra Dragicevic, Faculty of Biology, University of Belgrade

2017 - CURRENT

Lecturer at the course Academic Skills, PhD program Biology, Faculty of Biology, University of Belgrade

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2015

Mentor of the defended PhD thesis "Significance of genetic and environmental factors in childhood idiopathic bronchiectasis", Katarina Milosevic, Faculty of Medicine, University of Belgrade

2011 – CURRENT

Head of IMGGE Biology and Chemistry Program for High School Students

2003 – CURRENT

Mentor of 4 MSc theses and 11 graduate works

INVITED LECTURES

2015

Biology Students' Congress Simplast, Zlatibor, Serbia

2015

Workshop for teachers organized by EC funded project MARCH (MAking science Real in sCHools) within Life Long Learning Program, Belgrade, Serbia

OTHER ACTIVITIES

2019

Project reviewer for British Lung Foundation (BLF) - Masonic Charitable Foundation PhD studentship award scheme

2018

Project reviewer for French National Research Agency (ANR) - Generic call for proposals

2017

Organizer of the manifestation Open Day of Institutes of Serbia under the auspicies of Association of Institutes of Serbia

2016 - 2017

Program coordinator of "Scholar the Molecular" within IMGGE Program for promotion and popularization of molecular biology under the auspicies of the Secretariat for Sport and Youth of the City of Belgrade

2015 - 2016

Member of the Program Council and the Commision for Project Evaluation of the Center for the Promotion of Science

2014

Lead Guest Editor of the special issue "Cancer Monitoring Methods" in the BioMed Research International Journal

2014

Vice President of the Organizing Committee at the International Conference for Young Scientists, Belgrade, Serbia

2014

President of the Organizing Committee at the National Championship of Research Papers for high school students

2007

Participant of the Basic Sequencing and Fragment Analysis Course for Applied Biosystems 3130 Genetic Analyzer, organizer Applied Biosystems, Warrington, UK

2005

Demonstrator at the Theoretical and Practical Course: Molecular Diagnostics of Human Diseases, organizers: International Center for Genetic Engineering and Biotechnology & Institute of Molecular Genetics and Genetic Engineering, Belgrade, Serbia

2001

Participant of the course Genetic Counseling in Practice, organizer: European Genetic Foundation, Sestri Levante, Italy