

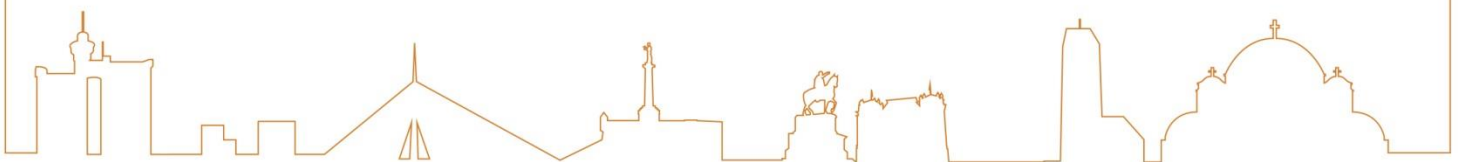
CoMBoS

1st Congress of Molecular Biologists of Serbia

KNJIGA SAŽETAKA BOOK OF ABSTRACTS



Beograd 2017 / Belgrade 2017



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with international participation**

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CoMBoS

1st Congress of Molecular Biologists of Serbia

POZDRAVNO PISMO ORGANIZATORA / WELCOME ADDRESS

Drage kolege,

Srpsko društvo za molekularnu biologiju (MoBioS) želi vam dobrodošlicu na Prvi kongres molekularnih biologa Srbije (CoMBoS). Program kongresa uključuje širok spektar fascinirajućih tema iz molekularne biologije i srodnih oblasti i posvećen je stimulisanju radoznalosti, komunikacije i saradnje, posebno među mladim istraživačima. Nadamo se da će CoMBoS doprineti ostvarenju našeg cilja da molekularnim biologima i naučnicima iz

srodnih oblasti pružimo priliku da razmene ideje i budu inspirisani intrigantnim predavanjima renomiranih naučnika i priznatih eksperata iz 24 zemalje (Austrije, Bosne i Hercegovine, Crne Gore, Danske, Francuske, Grčke, Holandije, Hrvatske, Irske, Italije, Kanade, Makedonije, Nemačke, Poljske, Rumunije, Rusije, Sjedinjenih Američkih Država, Slovenije, Španije, Švajcarske, Švedske, Turske, Velike Britanije i Srbije).



Prof. Gordana Matić

Predsednik Srpskog društva za molekularnu biologiju
President of the Serbian Society for Molecular Biology



Prof. Goran Brajušković

Predsednik Organizacionog odbora CoMBoS 2017
Chair of the CoMBoS 2017 Organizing Committee

Dear colleagues,

The Serbian Society for Molecular Biology (MoBioS) warmly welcomes you to Belgrade, Serbia, for the First Congress of Molecular Biologists of Serbia with international participation (CoMBoS). The programme covers a wide spectrum of fascinating contemporary topics in molecular biology and related fields, and is dedicated to fostering curiosity, communication and collaboration, especially among young researchers. We hope that CoMBoS will contribute in fulfilling our aim of creating an opportunity for molecular biologists and related scientists to exchange ideas and get inspired by state-of-the-art lectures of prominent scientists and acknowledged experts from 24 countries (Austria, Bosnia and Herzegovina, Canada, Croatia, Denmark, France, Germany, Great Britain, Greece, Ireland, Italy, Macedonia, Montenegro, The Netherlands, Poland, Romania, Russia, Slovenia, Spain, Sweden, Switzerland, Turkey, USA and Serbia).

The first CoMBoS is devoted to Academician Dušan Kanazir (1921-2010)

MolBioS is committed to preserving the memory of the great Serbian scientists who paved the way for the fruitful research and education in molecular biology in Serbia. Hence, the first CoMBoS is devoted to Academician Dušan Kanazir (1921-2010), an eminent scientist who played an essential role in the foundation of the Department of Biochemistry and Molecular Biology and the study program Molecular Biology and Physiology at the Faculty of Science, University of Belgrade, in 1972. This study quickly became attractive and acquired distinction, and has served as an incubator for many talented scientists who conduct cutting edge research in modern biology, confirming the efforts of this great visionary. In Memoriam to Academician Dušan Kanazir, warmly written by Prof. Ljubiša Topisirović and originally published in the Archives of Biological Sciences (2010), is presented in the Special Issue of *Biologia Serbica* dedicated to CoMBoS.

MolBioS Award

The Serbian Society for Molecular Biology (MolBioS) has established its own award in recognition of the achievements of individuals in the field of molecular biology and their contributions to its development and promotion in Serbia. The MolBioS Award is envisioned for an active scientist and will be presented at every subsequent Congress of Molecular Biologists of Serbia, with a closing lecture given by the winner.

The Award Committee, formed by the Steering Committee of the MolBioS unanimously agreed to present the first MolBioS Award to **Dr. Gordana Matić**, the distinguished professor of Biochemistry and Molecular Biology whose research has focused on steroid biology, with a particular interest in many facets of the glucocorticoid receptor in health and disease. An inspired article about Prof. Gordana Matić, written by her close collaborators Dr. Ana Đorđević and Prof. Goran Brajušković, is presented in the Special Issue of *Biologia Serbica* dedicated to CoMBoS.

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COMBINED ANALYSIS OF *p16* AND *p14* METHYLATION AND VEGF EXPRESSION STATUS COULD PREDICT MORE AGGRESSIVE PHENOTYPE OF LOCALLY ADVANCED RECTAL CANCERS

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Background: Preoperative chemoradiotherapy (CRT) represents the standard treatment for patients with locally advanced rectal cancer. Since only subset of patients has benefit from this preoperative treatment, development of reliable molecular biomarkers is required. In this retrospective study, we investigated methylation status of *p16* and *p14* tumor suppressor genes in locally advanced rectal cancer, in order to evaluate their potential predictive and prognostic role.

Methods: Methylation-specific PCR was used to examine methylation status of *p16* and *p14* genes in pretherapeutic and preoperative biopsy specimens of 60 patients with locally advanced rectal cancer.

Results: Aberrant methylation of *p16* and *p14* genes was detected in 43.3% (26/60) and 39.6% (23/58) of cases, respectively. In general, *p16* and *p14* methylation status did not affect the response to CRT, recurrences rate and overall survival. However, patients with simultaneous presence of either *p16* or *p14* methylation and high vascular endothelial growth factor (VEGF) expression showed significantly worse response to CRT ($p = 0.005$ and $p = 0.038$, respectively). In addition, tendency toward more frequent local recurrences and metastasis was observed in cases with concurrent presence of methylation of either *p16* or *p14* gene and high VEGF expression ($p = 0.075$ and $p = 0.072$, respectively), while patients with both of *p16* methylation and high VEGF expression had significantly shorter overall survival ($p = 0.010$).

Conclusion: Obtained results strongly suggest the importance of *p16* and *p14* methylation analyses in combination with other parameters, particularly VEGF expression, in order to better predict treatment response and patient outcome.

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