

## Young Investigator Research Grant 2019 awarded to Aleksandar Jakovljevic

The European Society of Endodontology (ESE) awards young researcher grants to support young investigators in the early phase of their research career in Endodontology ("young" investigator in the context of this award is defined as an individual who is 'professionally' young in academic terms rather than in chronological age, e.g. pre-doctoral students at all levels (MSc, PhD students and equivalent), and up to 3 years following the award of a PhD (or equivalent).

### Summary of project

*Getting controls under control: the selection and analysis of different oral tissues as appropriate counterpart of apical periodontitis lesions".*

So far, the opinion about the most appropriate control tissue for apical periodontitis lesions does not exist in the scientific literature. There are no strict recommendations and standardized protocols for the appropriate selection of control tissue in studies investigating the pathogenesis of apical periodontitis. Regarding the inconsistency of this issue, available studies reported the use of different tissues, such as dental pulp, gingiva, periodontal ligament, alveolar bone, human periodontal ligament fibroblast cell lines or even tonsillar, as a control tissues to apical periodontitis lesions. The main idea of this study is to compare the investigated laboratory parameters between potential control tissues (i.e. dental pulp, gingiva and periodontal ligament) and to analyse the difference of the same parameters between different control tissues and apical periodontitis lesions. We hypothesized that if there are no significant differences in the quantity and quality of isolated RNA and expression of inflammatory mediators or viral genes between pulp, gingiva and periodontal ligament, it is possible to use any of them as control tissues.



### Career

2010 - Graduated from School of Dental Medicine, University of Sarajevo, Bosnia and Herzegovina;

2011 - Diploma at the School of Dental Medicine, University of Belgrade, Serbia;

2012 - State examination - Certificate issued by the Ministry of Health, Republic of Serbia – Dentist in general practice;

2011 – PhD candidate at the School of Dental Medicine, University of Belgrade, Serbia; PhD thesis entitled "Identification and genotypisation of Epstein-Barr virus and Human cytomegalovirus in human apical periodontitis lesions"

2012 – present - Associate Researcher, on the project entitled "Genetic control and molecular mechanisms in malignant, inflammatory and developmental pathologies of the orofacial region" (Project number 175075, financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia), at School of Dental Medicine, University of Belgrade, Serbia;

2017 – PhD graduation at the School of Dental Medicine, University of Belgrade, Serbia;

2018 – present - Teaching Assistant at the Department of Pathophysiology, Cathedra for Oral rehabilitation at the School of Dental Medicine, University of Belgrade, Serbia;

2018 – present - General dentist in private practice;

- Aleksandar has published numerous articles in peer reviewed international journals in the field of aetiopathogenesis of apical periodontitis and *Herpesviruses*;

- He acts as a reviewer for a number of international journals and scientific research committees;

- He has received several awards for his scientific work (Best young investigator at the 20<sup>th</sup> Congress of the Balkan Stomatological Society in 2015, at the 4<sup>th</sup> and 5<sup>th</sup> Congress of the Austrian Society for Endodontology in 2016 and 2018, and the 11<sup>th</sup> edition of Paul Calas Prize of the French Society of Endodontics in 2018);

- In 2015 he received the prestigious award of the European Society of Endodontology – Young Investigators Research Grant for the project entitled: *“Oxidative stress biomarkers and bone resorption regulators in apical periodontitis - correlation with Epstein-Barr virus infection”*.

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