

## REVIEW

Regarding: procedure for occupying an academic position "associate professor" in the specialty "Dental Clinical Allergology", professional direction 7.2. Dental medicine, area of higher education 7. Health care and sports - 0.5 position for the needs of the ES of "Oral Pathology, Dental Allergology and Physiotherapy", Department of "Conservative Dentistry and Oral Pathology" at the Faculty of Dental Medicine, Medical University - Varna, in connection with announced in SG, no. 32/26.04.2022 competition for the occupation of the academic position "associate professor" and according to the report with entry No. 105-870/09.06.2022 by Associate Professor Dr. Tsvetelina Borisova-Papancheva, MD - Head of the Department of "Conservative Dentistry and Oral Pathology" and decision according to protocol No. 3/17.06.2022 of the Faculty Council of the Faculty of Dental Medicine, Medical University-Varna and on the basis of Art. 4, para. 1 and para. 2 of the Law on the Development of the Academic Staff in the Republic of Bulgaria, art. 57, para. 1 and para. 2 of the Regulations for the Implementation of the RSARB, Art. 6, para. 1, Art. 127, para. 1 and para. 2 of the Regulations for the development of the academic staff at the Medical University - Varna.

By: Prof. Dr. Vladimir Emanuilov Panov, Department of "Conservative Dentistry and Oral Pathology", Faculty of Dental Medicine, MU-Varna

The only candidate for the competition is Chief Assistant. Dr. Christiana Madzova-Chokanova, MD, Faculty of Dental Medicine, MU – Varna.

### Biographical data and career development

D-r Madjova was born on 28.12.1987 in Varna. She graduated dental medicine in 2013 at Medical *university* -Varna with the "Students Optimus" award for excellent success and high student achievements. Since 2013, she has been a full-time assistant professor in the Department of "Conservative Dentistry and Oral Pathology" at the Faculty of Dental Medicine of the Medical University - Varna, and since 2017 - chief assistant. In 2015, she graduated with a master's degree in health management at the University of Varna. In 2016, she defended his doctoral dissertation - "Complex oral diagnosis of children and adolescents with diabetes mellitus and obesity" with scientific supervisor Prof. Panov. She acquired a specialty in "Dental Clinical Allergology" in 2018. She specializes in "Operative Dentistry and Endodontics". Her professional training includes specialization in endodontics and aesthetic restoration in Switzerland and Italy; in maxillofacial surgery and general dentistry in Russia; in immunology and allergology at the National Center for Allergology-Sofia. She is licensed lecturer of Dentsply

Mailefer. She has been awarded an annual award for a young scientist - IMAB (2014), an award for a young scientist of the Union of Scientists in Bulgaria - Varna 2019.

#### General description of the submitted materials for the competition

The provided set of materials on electronic media is in accordance with the acquisition procedure for "Associate Professor" and includes the following documents:

1. Autobiography;
2. Master's degrees in dental medicine and health management;
3. Diploma for the educational and scientific degree "doctor";
4. Certificate of acquired specialty;
5. Documents for teaching experience and experience in the specialty, as well as for study load;
6. Medical certificate;
7. Certificate of criminal record;
8. Declaration of credibility;
9. Academic reference;
10. Monograph;
11. Declaration of copyright consent;
12. Summaries of scientific works;
13. Reference for scientific contributions;
14. Scientific publications.

#### Research activity

The total publication activity of the candidate contains 49 scientific works.

Of these, 16 are included as evidentiary material in the report on the fulfillment of the minimum requirements for holding academic position "Associate Professor". One publication was presented, outside of the evidentiary material for fulfilling the minimum requirements for holding academic position „Associate Professor ". Scientific works include:

- Dissertation work;

- Monograph;
- Published chapter of a collective monograph/textbook: 2 items;
- Full-text articles: 29 in number (related to the dissertation work - 7 ; for the main assistant - 10; for the associate professor - 13), of which:
  - In scientific publications, referenced and indexed in world-famous databases with scientific information - 5 items;
  - In non-refereed journals with scientific review – 7;
  - Full-text publications in scientific journals and collections, beyond the minimum scientometric requirements - 1 item.

The dissertation is on a topic. "Complex oral diagnosis of children and adolescents with diabetes mellitus and obesity". The aim is to make a complex oral diagnosis of children and adolescents with diabetes and obesity with a view to establishing the frequency and characteristics of oral pathology, the condition of the hard dental tissues, the periodontium and the mucosa in the oral cavity with the aim of developing a complex method for prevention and treatment . The study included 257 children, divided into 3 groups: children with diabetes mellitus – 114; obese children – 73; healthy controls in the same age range – 70. Conclusions were made that the most important risk factor in diabetics with a negative impact on their oral pathology is poor glycemic control and frequent episodes of hyperglycemia. A directly proportional relationship between oral lesions and disturbances in metabolic homeostasis was established. In children with diabetes and poor glycemic control, lesions occur in 12.28%. Risk factors in obese children for their oral health are: short breastfeeding period, early introduction of milk, dietary errors and lack of active fluoride prophylaxis. Poor oral hygiene and dental plaque are predisposing factors for periodontal disease in both diabetic and obese children. Diabetic children had more frequent oral complications compared to overweight children, which were significantly higher than controls. Dr. Madzova offers early active prevention and treatment to improve glycemic control and increase the quality of life of patients.

#### Publications

45 publications in Bulgarian and international specialized journals are presented. Of these, 30 are in Bulgarian and 15 in English.

Dr. Madzova is first author in 23 publications, second author in 4 publications, and next author in 18 publications.

A list of 24 contributions printed with abstracts in international journals and anthologies, as well as 8 in Bulgarian journals, is presented.

Dr. Madzova participated in writing a textbook for the purposes of teaching dental students - A textbook of oral pathology for dental students, Medinform, Sofia 2014, ISBN 978-619-7164-04-6 and co-authored a book chapter with Lyapina M., Furnadzhieva M., in "Products for oral hygiene" from "Biocompatibility in oral medicine - from theory to practice" edited by A.Kiselova and B.Petrunov. Medinform, Sofia 2016, ISBN 978-619-7164-02-2; chapter 22, 351-376.

### Monograph

Dr. Christiana Madzova is the author of the monograph "Saliva as the main biological marker. Clinical and paraclinical studies" with reviewers Prof. Dr. Angelina Kiselova - Yaneva and Prof. Dr. Margaritka Boncheva. The monograph deals with theoretical and practical aspects of the work of doctors from various medical specialties. Saliva is an easily accessible biological fluid with significant diagnostic capabilities in the field of laboratory medicine. Information from its analysis can indicate diseases in various systems, and the potential of this biofluid has not yet been fully exploited.

The monograph examines studies by Bulgarian and foreign authors and documents the full use of saliva not only in dental practice, but also in a number of areas of medical activity. According to the indicated data, sialochemistry will play an increasingly important role in the early detection, monitoring and progression of systemic and oral diseases, including in genomic medicine.

The guide is structured in several parts and examines saliva with its physiological, biochemical and physicochemical features; salivary gland development, regeneration and physiology; the secretion, composition and functions of saliva, as well as the factors that influence them.

The main types of clinical saliva tests are presented; laboratory studies (microbiological, biochemical, genetic), as well as its use in the diagnosis of drug and alcohol use. Genetic analyzes and the measurement of oxidative stress parameters in saliva are presented.

The topic of saliva evaluation in the diagnosis of oral diseases is logically considered: caries; periodontal diseases; carcinoma of the oral cavity, Sjögren's syndrome, as well as for systemic diseases: assessment of renal function; in cardiovascular diseases; viral infections (hepatitis A, B and C); neoplastic diseases; Behçet's disease, etc.

342 literary sources are cited, of which over 70% are from recent years.

Contributions from scientific works

Dr. Madzova's contributions relate to several major areas of Therapeutic Dentistry and she participated in interdisciplinary teams.

The main scientific directions in which work has been done are:

- Oral health in patients with diabetes mellitus and obesity - 7 publications
- Oral medicine-clinical and paraclinical studies - 6 publications
- Adenotonsillar hypertrophy in childhood and related symptoms – 2 publications
- Health management - 4 publications
- Common problems for the dentist - 7 publications

I did not find a publication in the field of the announced competition for dental allergology.

#### Citations

Total number of citations is presented in 11 titles cited by 24 authors.

#### Assessment of teaching and learning activities

The total working and teaching experience of Dr. Madzova till May 2022 is 8 years and 7 months, of which 3 years and 9 months as assistant professor and 4 years and 9 months as chief assistant.

The study load of Dr. Madzova's includes exercises with Bulgarian and English-speaking students of dental medicine in the disciplines: Oral pathology, dental allergology, Clinic of conservative dentistry.

For the academic year 2014/2015 a total of 262 hours were worked, for 2015/2016 – 332 hours, for the academic year 2016/2017 a total of 541 hours were worked, for 2017/2018 – 573 hours, for the academic year 2018/2019 - 336 hours, for 2019/2020 and 2020/2021 she is on maternity.

#### Scientific forums and projects

Documents have been submitted establishing the participation of Dr. Madzova in projects under the "Science" Fund - Competition session 2017: "Research on the effectiveness of the low-energy infrared laser for influencing oral pain symptoms" - Supervisor: Assoc. Miglena Balcheva - Eneva.

Previously, she participated in the Competition Session 2014 with the project "Investigation of the influence of fresh Aronia melanocarpa fruit juice intake on carbohydrate metabolism and oxidative stress in patients with type 2 diabetes at different

ages" with the supervisor Prof. Dr. Margaritka Boncheva , as well as at the Competition Session 2015 with the topic "Complex Oral Diagnosis of Children and Adolescents with Diabetes Mellitus and Obesity" with supervisor: Prof. Dr. Violeta Yotova.

A list of participations in 47 scientific forums abroad, as well as 17 in Bulgaria, is presented, which is indicative of Dr. Madzova's great scientific activity.

#### Conclusion

The documents presented by Dr. Madzhova for participation in the competition meet the requirements of the rules and regulations for acquiring scientific degrees for holding academic positions at Medical University-Varna. They covers the academic and scientometric criteria for occupying the academic position of "associate professor" at Medical University-Varna defined in the Regulations for the Development of the Academic Staff.

Varna, September 8, 2022

Prof. Dr. Vladimir Panov, DMD, PhD, DSc

A handwritten signature in blue ink, consisting of several fluid, connected strokes that form a stylized representation of the name.