

## ACADEMIC OPINION

by **Prof. Dr. Stefan Vasilev Peev, DMD, PhD, DSc**

**Dean of the Faculty of Dental Medicine- Medical University of Varna**

internal member of the Scientific Jury, on the basis of an Order P-109-518/30.11.2023 of the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov"- Varna

**Subject:** Competition for the academic position "Associate Professor" in the field of higher education "7. Health care and sports", professional direction " 7.2. Dental medicine" for the needs of the Department of Orthodontics (published in the SG, no. 83 of 03.10.2023)

**Candidate:** Chief Assist. Prof. Dr. Iliyana Georgieva Atanasova, DMD, PhD – Chief Assistant Professor at the Department of Orthodontics, Faculty of Dental Medicine, Medical University – Varna

### **Candidate's career profile**

Dr. Iliyana Georgieva Atanasova, DMD, PhD obtained Master degree in Dental Medicine at the Medical University of Varna in 2011. She was granted with "GOLDEN HIPPOCRATES" Award as a holder of DIPLOMA MAGNA CUM LAUDE of Alumni 2011 and Diploma "STUDENS OPTIMUS" –Prof. Dr. Slavcho Davidov for excellent results and high academic achievements in the academic, scientific, and creative activities of Alumni 2011. In the same year she was appointed as an assistant Professor at the Department of Orthodontics at the Faculty of Dental Medicine at MU-Varna. She teaches and trains students in the program of Orthodontics in Bulgarian-language and English-language at the Faculty of Dental Medicine - Varna on IV and V courses, and later VI course. In 2019, she was elected as an Administrative Assistant to the Department of Orthodontics. In 2020 she acquired a specialty in Orthodontics. In 2022, she acquired the scientific and educational degree "Doctor" by defending a dissertation on the topic: "Evaluation of individual indicators for orthodontic treatment of children in mixed and permanent dentition". In 2022. After a competition, she held the academic position of Chief Assistant at the Department of Orthodontics. In 2023, her monographic work on " Age determination by morphological and physiological characteristics of dental tissues " was published. She is fluent in English and Russian. She has over 20 publications as an independent author and co-authored in the field of Orthodontics in Bulgarian and foreign scientific journals and many participations in National and International Conferences and Symposia. Member of BDA, BOO, BOAS,EOS, ADA.

**The diagnostic and therapeutic activity of** Dr. Iliyana Atanasova, DMD, PhD is entirely in the field of Orthodontics. The total length of professional service in the specialty at the date of the competition amounts to 8 years and 4 months.

## **Overall assessment of the documentation submitted for the participation in the competition.**

The materials submitted for participation in the announced competition for the academic position "Associate Professor" in Orthodontics are in accordance with the requirements of the Law on Academic Staff Development and the Regulations for the Development of Academic Staff and Academic Positions at the Medical University - Varna.

## **Evaluation of scientific activity in the overall academic development of the candidate**

In the academic transcript of publications, citations and scientific profiles of Ch. ass. Prof. Dr. Iliyana Atanasova, DMD, PhD the scientometric requirements for occupying the academic position of Associate Professor include the following scientific works:

1. Indicator group A1:- Dissertation for acquiring scientific and educational degree "Doctor" on "Evaluation of individual indicators for orthodontic treatment of children in mixed and permanent dentition"
2. Indicator group B3:- monographic work on " Age determination by morphological and physiological characteristics of dental tissues", 2023, ISBN 978-619- 221-431-9;
3. Indicator groups Г7 and Г8:- 6 full-text articles, of which 3 are in refereed and indexed editions in Scopus and Web of Science.
4. 3 additional full-text publications in scientific journals and collections, beyond the minimum scientometric requirements for occupying the academic position "Associate Professor"

The total number of points from the published articles with which Dr. Atanasova participated in the competition is 229.5.

Of 4 publications Dr. Atanasova is an independent author, of one is the first author, of three is a second author and of one publication - a fourth. The publications in Bulgarian are 6 issues, and the publications in a foreign language (English) – 8 issues.

The presented scientific papers and the results of the research work are divided thematically in the following scientific fields:

1. Dental age of Bulgarian children in mixed and permanent dentition ( Г7.3, Г8.3)
2. Skeletal age of Bulgarian children 7-17 years. Mean chronological age of Bulgarian children during the phases of pubertal pick CVM II, CVM III и CVM IV. (A1)
3. Study of individual indicators of puberty growth period and development. A prognostic model on orthopantomography for initiation of orthodontic treatment.( A1, B3)
4. Incidence of tooth germ mineralization stage of permanent teeth in the pubertal growth period. ( Г7.2, Г8.1, Г8.2)

5. Determination of age at different stages of human ontogenetic development by different characteristics of dental tissues (B3)

6. Mouth breathing in children in mixed and permanent dentition and associated dental and occlusal deformities (Г7.1)

7. Pathology of dental eruption and rotation of upper permanent first molars (Publications beyond the minimum scientometric requirements)

A reference is presented for 19 citations, which bring 135 points, of which 2 are citations in refereed and indexed scientific editions and 17 are citations in non-refereed journals with scientific review and in monographs.

Dr. Atanasova has scientific profiles in three databases: Google Scholar, Research Gate and ORCID.

In the monographic work of Dr. Iliyana Atanasova on the topic: " Age determination by morphological and physiological characteristics of dental tissues ", she presents the phylogenetic and postnatal development of maxillofacial structures. For the first time in our country a systematic consideration of the growth and development of each individual is presented. Contemporary methods for determining the dental, skeletal and chronological age not only of growing patients, but also in non-growing patients are classified, enabling the determination of chronological age according to dental markers in persons over 18 years of age. A correlation between dental, chronological and skeletal ages is derived and methods for assessing age at different stages of human ontogenetic development, including the embryonic stage, are presented.

The contributions from the research activities of Dr. Iliyana Atanasova can be differentiated as follows:

1. Contribution of an original nature

For the first time in Bulgaria, a model is being developed to determine the puberty growth period on orthopantomography by assessing individual indicators of growth and development.

2. Scientific-theoretical contributions

- An assessment of dental age by the Demirjian method and the Willems method was made in Bulgarian children aged 7-16 years and the accuracy of both methods in determining dental age relative to chronological age and between them was examined.
- The mean chronological age in girls and boys was established before the peak of pubertal development in stage CVM II, at the peak of pubertal development in stage CVM III and after the peak of pubertal development in stage CVM IV by the method of cervical spine maturity by Baccetti.
- The stages of mineralization of teeth 23, 33, 35, 37, 38 in the stages of skeletal age - CVM II, CVM III and CVM IV by Baccetti were established.

### 3. Scientifically applied contributions

- The Willems method for assessing dental age in Bulgarian children aged 7-16 years is recommended.
- A model is presented to determine the puberty growth period on orthopantomography, by assessing the degree of mineralization of different teeth in combination with chronological age and sex.

As a result of the study conducted by Dr. Atanasova, involving 320 children, she found that the peak of puberty development (Skeletal Age CVM III by Baccetti) in Bulgarian children is 11.58 - 12.02 years for girls and 12.12 - 12.93 years for boys. The prepubertal period (Skeletal age CVM II by Baccetti) in Bulgarian children is up to 11.63 - 11.98 years for boys and up to 9.91 - 10.54 years for girls. This is the most favorable moment for the treatment of Class III malocclusions with a maximum effect on the growth of the maxilla. These obtained results are innovative in terms of research in Orthodontics in our country.

### **Complex, qualitative assessment of educational-methodological and teaching activities:**

The academic transcript for the academic employment of Dr. Atanasova shows that the average workload covers the norm of 360 academic hours almost throughout the entire period of employment: 2018/2019 – 358 hours; 2019/2020 – 378 hours; 2020/2021 – 367 hours; 2021/2022 -344 hours and 2022/2023 – 395.

### **Overall assessment of the applicant regarding the compliance of the mandatory conditions for the quantitative criteria and scientometric requirements according to the Rules of Organization and Procedure of MU – Varna**

The presented academic transcript shows that Ch. Ass. Prof. Dr. Iliyana Atanasova meets, and in some groups indicators exceed the minimum scientific and metric requirements for occupying the academic position "Associate Professor", according to the Rules for Development of the Academic Staff of MU-Varna. Dr. Atanasova's scientific output is an indicator of her competence in the field of research and shows her professional training and practical experience, her interests, dedication and precision in the research quests in the field of orthodontics.

### **Conclusion**

The overall assessment of the professional development, scientific activity and contributions, the educational and teaching compliance, the work with students and the administrative experience of Dr. Atanasova give me grounds to give my positive academic opinion and confidently propose to the members of the Scientific Jury to choose Ch. ass.prof. Dr. Iliyana Georgieva Atanasova, DMD, PhD for the academic position "Associate Professor"

in the field of higher education, 7. Health care and Sport", professional field "7.2. Dental Medicine", specialty "Orthodontics" for the needs of the Department of Orthodontics at the Faculty of Dental Medicine Varna, Medical University - Varna. Dr. Atanasova's career development, scientific and teaching activities are at the highest academic level and the achieved Scientometric requirements are sufficient, which gives me grounds to vote "yes" with conviction and categorical "Yes" for awarding the academic position "Associate Professor" to Dr. Iliyana Georgieva Atanasova, DMD, PhD.

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