ACADEMIC OPINION

by

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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", Scientific field of Orthodontics (published in the SG, no. 83 of 03.10.2023) for the needs of the Department of Orthodontics.

I have been assigned to prepare an Academic Opinion on the procedure for occupying the academic position "Associate Professor" as a member of the Scientific Jury according to an Order № P-109-518/30.11.2023 of the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov"- Varna

In the announced Competition, within the legally established deadline, a set of documents have been submitted by one applicant – Ch. ass. Prof. Dr. Iliyana Georgieva Atanasova,DMD, PhD.

Candidate's career profile

Dr. Iliyana Georgieva Atanasova DMD, PhD was born in 1979 on the 17th of February in Varna. Marital status – married. Dr. Iliyana Georgieva Atanasova, DMD, PhD obtained Master degree in Dental Medicine at the Medical University of Varna in 2011. She was awarded 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 2019 she was enrolled as a full-time PhD student in the scientific specialty "Orthopedic dentistry" on the topic: "Evaluation of individual indicators for orthodontic treatment of children in mixed and permanent dentition" headed by Assoc. Prof Dr. Hristina Arnautska, DMD, PhD. In 2020 she acquired a specialty in

Orthodontics, and in 2022 scientific and educational degree – "Doctor". 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. Dr. Iliyana Atanasova, DMD, PhD published more than 20 scientific papers in Bulgarian and foreign editions. She is a member of BDA, BOO, EOS, ADA.

The candidate Dr. Iliyana Georgieva Atanasova, DMD presented for the competition the following Scientific works:

1. Dissertation – 1 piece
2. Publications in periodicals — 12 issues.
3. Monograph — 1 issue.
4. Participation in Scientific congresses, conferences and Scientific sessions with printed abstracts – 21 issues;

In the analysis of Dr. Atanasova's publications - they are diverse and cover the whole aspect of the specialty Orthodontics.

Teaching activities:

Dr. Atanasova is actively involved with the Teaching duties of the Department of Orthodontics and obtains the required by the Rules for the Development of Academic Staff average annual workload. Dr. Atanasova participated in both the course of Bulgarian-language teaching and the course of English-language teaching to Dental students, with an average and educational intensity for the last 5 years being 368.4 academic hours. Dr. Atanasova has proven qualities as a teacher and one of the most prominent assistants Prof. who gladly passes on her experience to students.

Contributions from the scientific works of Dr. Atanasova:

The main directions in the scientific and research work of the candidate are related to the study of the Dental age of Bulgarian children in mixed and permanent dentition by different methodologies and the establishment of their credibility and reliability for the Bulgarian population. The Dental age of children in mixed and permanent dentition aged 7-16 years was assessed by the methods of Demirjian and Willems. The accuracy of each method (up to half an year) is determined according to the chronological age of the children. A sex-dependent correlation of the accuracy of the methods was studied.

The research work of the candidate is related to determining the Skeletal age by the maturation of the cervical vertebrae of Bulgarian children at chronological age 7-17 years, as well as its relationship with the stages of mineralization of the germs of different teeth. The mineralization stages of mandibular canine, mandibular second premolar, mandibular second molar and mandibular third molar in the left mandibular quadrant, as well as maxillary left canine relative to the stages of cervical spine maturation as well as their potential to predict the puberty peak of growth by their degree of calcification were studied.

The mean chronological age at different stages of Skeletal age of Bulgarian children and the corresponding Dental age during the period of puberty development was studied. For the first time in Bulgaria, a model for determining the puberty growth peak on orthopantomography was prepared by assessing individual indicators of growth and development.

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)

4. Study of individual indicators of puberty growth period and development. A prognostic model on orthopantomography for initiation of orthodontic treatment.(A1, B3)

5. Incidence of toth germ mineralization stage of permanent teeth in the pubertal growth period. (Г7.2, Г8.1, Г8.2)

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

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

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

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

I. 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.

II. Scientific-theoretical contributions

1. An assessment of dental age by the Demirjian method and the Willems method was made in Bulgarian children aged 7-16 years and
2. The accuracy of both methods in determining dental age relative to chronological age and between them was examined.
3. The correlation between the accuracy of the methods for assessing the dental age by Demirjian and Willems and gender was studied.
4. 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 vertebrae maturation by Baccetti.
5. 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.
6. The correlation relationships between the stages of mineralization of teeth 23, 33, 35, 37, 38 and the stages of skeletal age CVM II, CVM III and CVM IV by Baccetti were studied.

III. Scientifically applied contributions

1. The Willems method for assessing dental age in Bulgarian children aged 7-16 years is recommended.
2. The mean chronological age of girls and boys in stage CVM II was established, until which class III treatment with maxillary expansion and protraction in the upper jaw was most effective, according to Baccetti.

3. The mean chronological age of girls and boys in stage CVM III and CVM IV has been established, at which it is recommended to start treatment of the distal occlusion with retromandibulia according to Baccetti.
4. The stages of mineralization of teeth 23, 33, 35, 37, 38 during the stages of Skeletal age CVM II, CVM III and CVM IV and the relationship between them are determined.
5. 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.

Therapeutic and diagnostic activities:

Dr. Iliyana Atanasova, DMD, PhD, works at the University Medico – Dental Center since 2017, being an indispensable part of the team of the center. A lecturer with such a clinical experience is a valuable asset for the academic staff of the Department of Orthodontics and would respond to the academic title of Associate Professor.

Conclusion:

After a detailed examination of the documents provided to me, which prove the scientific and professional development of Dr. Iliyana Atanasova, I can confirm that she fully meets the current requirements for holding the academic position "Associate Professor" in the field of higher education 7. Health care and sports, professional field 7.2. Dental medicine, in Scientific specialty "Orthodontics".

This gives me a reason to **vote positively and** I recommend to the honorable Scientific Jury **Dr. Iliyana Atanasova, DMD, PhD** to **be awarded with academic position "Associate Professor".**

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Academic Opinion written by:
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