

## ACADEMIC ASSESSMENT

for the needs of procedure for holding the academic of "Associate Professor" in the scientific specialty of Anatomy, Histology and Cytology, Higher Education Area 7. Health and Sport, PF 7.1. Medicine, declared for the needs of teaching of the Department of Anatomy and Cell Biology, Medical University "Prof. Dr. Paraskev Stoyanov" – Varna in **SG No 45 of 28 May 2024.**

Applicant name: **Meglana Valdemarova Angelova, MD, PhD**

Author of the assessment: **Associate Professor Stoyan Pavlov Pavlov, MD, PhD**

Scientific specialty: "Anatomy, histology and cytology",  
HE area "7. Health and Sport", PD "7.1. Medicine"

Institution: Department of Anatomy and Cell Biology, Medical University - Varna

Address and contacts:

Postal address:

9000 Varna, 55 Prof. Marin Drinov Street,  
Medical University - Varna

Department of Anatomy and Cell Biology

E-mail address: stoyan.pavlov@mu-varna.bg

Telephones: 088 919 9763

00359 52 677 079

*The assessment is drawn up in accordance with the requirements of the LfDoASiRB and Chapter 3. Section III of the RfALfDoASiRB – Conditions and procedure for holding the academic position of associate professor and Chapter 3. Section III of the Rules for the Development of Academic Staff at the Medical University 'Prof. Dr. P. Stoyanov' – Varna – Conditions and procedure for holding the academic position of Associate Professor.*

# **ACADEMIC ASSESSMENT**

**by Prof. Stoyan Pavlov Pavlov, MD, PhD,**  
Associate Professor at the Department of Anatomy and Cell Biology,  
Medical University "Prof. Dr. Paraskev Stoyanov" – Varna,  
member of the scientific jury appointed by an order of the Rector of the  
Medical University "Prof. Dr. Paraskev Stoyanov" - Varna,  
**No P-109-224 / 26 July 2024**

**Subject:** Procedure for holding the academic position of "Associate Professor", **one of two announced in State Gazette No 45 of 28 May 2024**, in the field of higher education 7. Health and Sports, professional field 7.1. Medicine, speciality "Anatomy, Histology and Cytology" **for the teaching in Bulgarian and English** at the Department of Anatomy and Cell Biology, Medical University "Prof. Dr. Paraskev Stoyanov" – Varna.

Paper and electronic materials were submitted for the procedure by **Dr Meglena Valdemarova Angelova, MD, PhD**, which include all the documents required under Article 126 of the Rules for the Development of Academic Staff at the Medical University 'Prof. P. Stoyanov' – Varna.

## **I. Biographical data and career profile of the applicant**

Dr. Meglena Valdemarova Angelova, MD, Chief Assistant Professor at the Department of Anatomy and Cell Biology, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, graduated with excellent results from the Master of Medicine degree at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna in 2003. In the period 2003-2006, she worked as a medical coordinator at the Center for Emergency Medical Care in Shumen. In 2006, after a successful competition, she was appointed assistant professor at the Department of Anatomy and Cell Biology (then Department of Anatomy, Histology and Embryology) of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna. From 1 January 2010 she acquired a recognised specialty in Anatomy, Histology and Cytology and from 2010 to 2011 held the position of Senior Assistant at the same department. Since 2011 she has been a Chief Assistant Professor at the Department. In 2014-2015 she was a doctoral student in an independent form of study, and in 2015, after successfully defending a dissertation entitled "Analysis of progenitor cells during the development of the palium in the human", she acquired the SED "Doctor of Medicine" (HEA 7. Healthcare and sports, PF 7.1 Medicine, scientific specialty "Anatomy, histology and cytology". Since

2021, Dr Angelova has also held the administrative positions of Administrative Assistant and Material Responsible Person at the Department of Anatomy and Cell Biology, FM, MU-Varna. She is a member of the Bulgarian Anatomical Society and the Bulgarian Medical Association. She is fluent in written and spoken English. She has excellent digital competence.

## **II. General description of the submitted materials for the competition.**

The applicant has submitted in electronic form the required documentation for participation in the competition in full: administrative part – application, curriculum vitae, diplomas, academic transcripts; teaching and scientific activities – a list of publications with an evidential part, a reference to the contributions and citations that allow the assessment of the mandatory conditions and the mandatory quantitative and qualitative criteria and scientometric indicators.

## **III. Assessment of the applicant's monographic work and scientific output**

Dr. Meglena Angelova has various scientific interests and presents scientific production, which can be grouped thematically in four topics. She is the first or second author of most of the presented articles, with more than half of them published in journals and publications indexed and referenced in world-renowned scientific databases.

A significant part of Dr. Angelova's scientific publications, including her doctoral dissertation, are in the field of neurogenesis in the CNS. Her studies on prenatal neurogenesis in the human fetal brain contribute to elucidating the mechanisms and genetic factors associated with cortical gyrification and molecular differences in health and disease. They demonstrated for the first time the presence and gradient of radial stem cells and intermediate progenitors expressing transcription factor *Zbtb20* in the palium of a fetal human brain, as well as a small population of stem cells that have a different transcription profile (*PAX6<sup>+</sup>/Sox2<sup>-</sup>* and *Pax6<sup>-</sup>/Sox2<sup>+</sup>*) than the mass observed in this niche (*PAX6<sup>+</sup>/Sox2<sup>+</sup>*). Dr. Angelova is also part of the author's team, detailing the proliferative processes and phenotype of proliferating cells in the intact spinal cord and post-ischemic cerebellum in primates.

Over the past few years, Dr. Angelova has focused her scientific interests on the peculiarities and variations in the shape of the human foot and the methods for their assessment. In her studies on this topic, she examines the variations in the articular surfaces of the talus and calcaneus, examines various generally accepted indices for assessing the shape of the

foot and shows the lack of correlation between them and the constitutional features of the individual (weight, gender, BMI), as well as practically important dependencies between some of the indices used. Dr Angelova also demonstrates the characteristic features of the shape of the foot among the Bulgarian population, as well as establishes the high frequency of some of its variants in the Bulgarian population.

This is also the subject of Dr Angelova's monograph "Anatomic features of the human foot", published in 2024. The monograph systematizes the modern knowledge about the anatomical features and variations of the human foot and their meaning and relationship with its functions and biomechanics. The most common methods for assessment and examination of the foot are described and data on their accuracy and reliability are presented. Throughout the text, Dr. Angelova not only summarizes contemporary literary data, but also illustrates her conclusions with data from her own studies. Included own results further shape the impression of a long and purposefully conceived work, successfully arranged and shaped in this monograph. The concisely written conclusions to each problematically related part summarize the most important inferences and views of the author and her interpretations. The monograph is structured in four parts with a total of ten chapters and is illustrated richly with photographs, diagrams and graphics. The literary sources used are mostly contemporary articles, books, textbooks and monographs by Bulgarian and foreign authors, indexed in world-famous databases. Their impressive number of 288 titles demonstrates the author's solid knowledge and skills in the handling of scientific literature. Despite the specificity of the described and analyzed problems, the language in the monograph is clear, concise and literary. The audience to which the messages of the written monograph are addressed is very wide. The text presented would be of interest to both doctors and medical professionals: orthopedists and traumatologists, physiotherapists, pediatricians, radiologists and general practitioners, sports doctors, physiotherapists and rehabilitators, as well as professionals from other fields of knowledge: athletes and coaches, shoe designers (including smart), robotics specialists and sensor and software developers in the context of the Internet of Things. The technical parameters of the monograph fully meet the requirements for habilitation monograph work.

Most of Dr. Angelova's other scientific publications and contributions are reports and studies of various anatomical variations, which clearly demonstrates her extensive experience as a dissectionist and morphologist.

In them she applies classical and modern methods of macroscopic morphology and enriches the anatomical knowledge with the description of some rare but clinically significant anatomical variants. Dr. Angelova is also part of an author's team that has studied basic parameters of semen and their relationship to fertility, which in several publications demonstrates the need for correction of some of the generally accepted reference limits.

#### **IV. Reflection (citation) of the applicant's publications in national and foreign literature.**

Dr. Meglena Angelova has presented for participation in the competition the necessary information about the articles published in the scientific periodicals and the materials from participation in scientific forums. The evaluation of the citations was carried out on full-text publications in journals that are indexed in worldwide databases Scopus and Web of Science, as well as on the evidence provided by the applicant.

As evidence, the candidate submits a total of four citations in publications referenced and indexed in world databases, which brings her the required minimum of 60 points under this criterion (indicator E. of the Scientific Indicators for occupying the academic position "Associate Professor" in PA 7. Health and Sports).

4 citations x 15 points = 60 points

In fact, when searching the scientific databases, it was found that Dr. Angelova's articles had more citations than those presented. However, the refusal of the candidate to submit all her citations, but only at the required minimum, is quite understandable, given the crippled and heavily dependent on indices and numbers procedure in Bulgaria for assessing scientific and teaching competence when awarding scientific degrees and occupying academic positions.

#### **V. Comprehensive, qualitative assessment of teaching and teaching activities.**

According to the certificates submitted, Dr Meglena Angelova has more than 20 years of experience as a doctor, including 18 years of teaching experience in Anatomy, Histology and Cytology. According to the report on the academic workload, over the last five completed academic years Dr. Angelova has conducted 2775 hours of academic activity. This corresponds to an average academic workload of 555 hours (more than 1.5 times the academic workload of non-habilitated lecturers at MU-Varna), formed by exercises and seminars in Bulgarian (312 hours per year on average) and English (209 hours per year on average), as well as lectures (40 hours per

year on average) for students from the four faculties and the Medical College of MU-Varna. This workload does not include the auditorium workload of participation in semester examinations, which amounts to an average of approximately 200 hours per year (according to the methodologies for calculating auditorium workload during examinations at MU-Varna). Dr. Angelova participates in the development of numerous teaching aids and manuals. Actively participates in the enrichment and maintenance of the quality of the databases of test questions used in the standardized examinations of students in the department, in the development and planning of curricula. Over the past three years (together with Dr. Desislava Marinova) she has been responsible for the training of Nurse students and has completely redesigned the curriculum and lecture course to meet the modern requirements of the profession.

Over the years, Dr Angelova has also been assigned key administrative responsibilities (course coordinator for the second course of the specialty of Medicine, English-language training, preparation of the annual study schedules of the Department, etc.) Actively participates in the creation and development of the Voluntary Donation Program of the Department of Anatomy and Cell Biology and at its start skillfully performed the duties of a contact person. Since 2021, she has also been appointed as an administrative assistant and materially responsible person at the Department of Anatomy and Cell Biology at the Medical University of Varna. According to the records in NACID, she has also participated in three national scientific and infrastructure projects.

**VI. Overall assessment of the applicant's compliance with the mandatory conditions and the mandatory quantitative criteria and scientometric indicators**

The analysis of the applicant's scientific output, in accordance with the national minimum requirements for the loan of academic position "Associate Professor", is shown in the table below:

Pool of indicators	Content	Associate Professor (number of points)	Meglana Angelova (number of points)
A	Indicator 1	50	50
B	Indicator 2	-	-
C	Indicators 3 or 4	100	100
D	Indicator 7	80	144.59
	Sum of indicators 5 to 9	200	212,46
E	Sum of indicators 10 to 12	50	60
F	Sum of indicators 13 to end	-	95

An error was made in the academic transcript provided by the Library of the Medical University 'Prof. Dr. Paraskev Stoyanov' – Varna: Journal of Fetal Medicine, ISSN: 2348-1153, was incorrectly reported as an unrefereed scientific peer-reviewed journal. The publication in question is part of the Web of Science Core Collection and, in accordance with the RALfDoASiRB and the Rules for the Development of Academic Staff at the Medical University 'Prof. Dr. P. Stoyanov' – Varna, the article published in it should bring to each of the co-authors  $60/11=5.45$  points instead of the 2.43 points awarded. Thus, the sum of the points under indicator 7 and the total amount under criterion D (sum of indicators 5-9) is amended from 139.14 (indicator 7) and 209.74 (criterion D) respectively to 144.59 (indicator 7) and 212.46 (criterion D).

A total of 95 points should be awarded under criterion F:

Indicator 15 – Specialty acquired: 40 pt.

Indicator 16 – Participation in national scientific and educational projects:  $3*15=45$  points (according to NACID information)

Indicator 21 - Published university teaching tool:  $1*20/2=10$  t.

## VII. CONCLUSION

Based on the analysis of the documentation submitted for participation in the competition and taking into account the observations made, I consider that Dr Meglena Valdemarova Angelova, MD, **meets the mandatory and specific conditions and scientific criteria** of the LfDoASiRB, the Rules for its implementation and the Rules for the development of academic staff at the Medical University 'Prof. Dr. P. Stoyanov' – Varna, for **holding the academic position of 'Associate Professor'**.

I would recommend to the honourable members of the scientific jury to **award Dr. Meglena Angelova, MD, PhD the academic position of Associate Professor in Anatomy, Histology and Cytology** for the needs of teaching in Bulgarian and English, at the Department of Anatomy and Cell Biology, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna

29/08/2024

Varna

Signature:

(Assoc.Prof. Stoyan Pavlov, MD, PhD)

Заличено на основание чл. 5,  
§1, б. „В“ от Регламент (ЕС)  
2016/679