

## REPORT

From Prof. Dr. Ivan Maslarski, Head of the Department of Anatomy and Histology, Pathological Anatomy, and Forensic Medicine at Sofia University "St. Kliment Ohridski", Faculty of Medicine

regarding the competition for the academic position of "PROFESSOR" in the regulated area of higher education 7. Health and Sports, professional field 7.1. Medicine (Anatomy, Histology, and Cytology) full-time position, for the needs of MU Plovdiv, Department of Anatomy, Histology, and Embryology. The competition was announced in the State Gazette in 2024. One candidate submitted documents for the competition – Assoc. Prof. Dr. Atanas Georgiev Baltadzhiev, PhD. A full set of documents was presented, and the candidate was admitted to the competition. My opinion is entirely in accordance with the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria, the regulations for its application, and the criteria announced for the position. I have also complied with the regulations for the acquisition of scientific degrees and the occupation of academic positions at MU Plovdiv.

### **I. Professional Development of Assoc. Prof. Dr. Atanas Baltadzhiev**

Assoc. Prof. Dr. Atanas Baltadzhiev was born on October 12, 1967, in Plovdiv. He completed his secondary education at the German Language High School "Bertolt Brecht" in Pazardzhik. In 1994, he graduated from the Medical University of Plovdiv with a Master's degree in Medicine. From 1995 to 1998, he specialized as a clinical ordinator at the Department of Obstetrics and Gynecology at the Medical University of Plovdiv, and in 1999 he acquired a specialization in the same discipline. After successfully passing a competitive exam in 1999, Assoc. Prof. Baltadzhiev began working as an assistant at the Department of Anatomy, Histology, and Embryology at the Medical University of Plovdiv. In 2003, he acquired a specialization in Anatomy, Histology, and Cytology, and in 2006, he was appointed as a senior assistant. He defended his doctoral dissertation in 2010 on the topic "Morpho-anthropological Characteristics of Patients with Type 2 Diabetes Mellitus" and received the degree "Doctor of Medicine." In 2015, after a competitive examination, he was appointed as an associate professor.

Assoc. Prof. Dr. Baltadzhiev is an active member of the Faculty Council at the Faculty of Medicine at the Medical University of Plovdiv, as well as of the Research Committee. In April 2024, he was elected as the head of the Department of Anatomy, Histology, and Embryology. He is fluent in German, English (level B2), and Russian, and in 1995 he specialized in German language training in Vienna.

## **II. Teaching and Educational Activities of the Candidate**

Assoc. Prof. Dr. Atanas Baltadzhiev has 25 years of academic experience in the specialty "Anatomy, Histology, and Cytology." He actively participates in the teaching work of the department, conducting exercises and lectures in Bulgarian and English for students from various specialties, including nephrology specialists. He is responsible for teaching anatomy to first-year medical students and is also in charge of project activities and international cooperation. In the past three years, he has completed 4,025 teaching hours, significantly exceeding the minimum requirement.

The main directions of his scientific research activities include clinical anthropology, normal morphology, and variations in the structure of the human body. He has published over 66 original articles, three monographs, and 68 scientific reports at international and national conferences. He is a member of the academic board of several international scientific journals and co-author of 10 textbooks on anatomy and 8 study guides.

Assoc. Prof. Baltadzhiev has been a scientific supervisor for two doctoral students in anatomy and currently assists young colleagues in choosing topics for dissertation theses. He has over 140 positive citations and 24 reviews in international journals. He has participated in 16 scientific juries and four projects, two of which are international.

He is a member of the Bulgarian Medical Association, the Bulgarian Anatomical Society, and in May 2024, he was elected president of the Bulgarian Anthropological Society.

## **III. Contributions and Scientometric Indicators of Assoc. Prof. Dr. Atanas Baltadzhiev, PhD**

Assoc. Prof. Dr. Atanas Baltadzhiev has made significant contributions to the scientific field, exceeding the minimum scientometric requirements of MU-Plovdiv. He has earned 50 points for his doctoral dissertation, 100 points for his habilitation monograph, and 220 points for a published monograph. His publications and reports in refereed journals are valued at 384.71 points, and those in non-refereed journals at 158.5 points. The candidate has also presented 15 articles, 10 of which are in journals indexed in Scopus and/or Web of Science, and 5 with an impact factor, earning him an additional 300 points. With these indicators, Assoc. Prof. Baltadzhiev significantly surpasses the requirements for both associate professor and professor.

From the presented documents regarding the candidate's scientific research activities, I would highlight the following:

- **Anthropometric and Morphometric Characteristics of the Faces of the Bulgarian Population Using a 3D Laser Scanner** A pioneering anthropological study on the facial morphology of young Bulgarians using an innovative 3D laser scanner methodology was conducted. A three-dimensional database providing detailed data on the volume and area of individual facial regions was created. This database is applicable in various clinical disciplines, including rhinoplasty, aesthetic, and maxillofacial surgery. Parameters of the oral cleft and lips were examined, serving as diagnostic criteria and for postoperative evaluation in aesthetic medicine. The evidential material includes publications in refereed and non-refereed journals.

- **Anthropometric Characteristics of Patients with Type 2 Diabetes Mellitus** A detailed anthropometric characterization of men and women with type 2 diabetes in Bulgaria was carried out. It includes determining the anthropological status of the patients, examining the topographical distribution of subcutaneous and visceral adipose tissue. A somatotype and body composition were determined using bioimpedance analysis (BIA). A correlation between anthropometric indicators and paraclinical data was established, and derived parameters and indices were calculated to characterize the anthropological status. The evidential material includes the doctoral dissertation and publications in refereed journals.

- **Anthropometric Characteristics of Adults with Type 1 Diabetes Mellitus (19-40 years old)** A detailed anthropometric characterization of adult patients with type 1 diabetes was performed, including determining the anthropological status and examining the topographical distribution of adipose tissue. A somatotype and body composition were determined using bioimpedance analysis (BIA). A correlation between anthropometric indicators and paraclinical data was established. Derived parameters and indices were calculated to characterize the anthropological status. The evidential material includes publications in refereed journals.

- **Anthropometric Characteristics of Children with Type 1 Diabetes Mellitus** A detailed anthropometric study of children with type 1 diabetes in Bulgaria was conducted. The anthropological status of the children was determined, and the topographical distribution of subcutaneous and visceral adipose tissue was examined. A somatotype and body composition were determined using bioimpedance analysis (BIA). Derived parameters and indices were calculated to characterize the anthropological status. The evidential material includes publications in refereed journals.

- **Anthropological Characteristics of Clinical Crowns of Teeth in the**

**Bulgarian Population** An anthropometric study of the clinical crowns of teeth in the Bulgarian population was conducted. A database of the parameters of clinical crowns was created, which can be used in theoretical and practical aspects in anthropology, orthodontics, operative dentistry, prosthetic and aesthetic dentistry, forensic medicine, and archaeology. Sexual dimorphisms were determined, and dental indices were calculated, which were compared with other populations and people from the Eneolithic period. The evidential material includes publications in refereed and non-refereed journals.

- **Characteristics of the Humerus as a Predictor for Determining Sex in**

**Skeletal Remains.** An anthropological study of humeral bones and fragments belonging to the Bulgarian population born between 1920 and 1993 was conducted. The study includes an anthroposcopic and anthropometric characterization of the humerus, as well as the use of a 3D laser scanner to examine sexual dimorphism. Discriminant equations and scales were created, providing information on the individual contribution of each anatomical part of the humerus and the most effective combination of anthropometric signs for determining sex. The evidential material includes publications in refereed journals.

### **Scientific and Applied Contributions by Importance and Direction:**

1. **Clinical-Anthropological Studies and Profile Determination in Type 1 and 2 Diabetes** A system of anthropological parameters for clinical practice has been developed, characterizing the physical status of patients with type 1 and type 2 diabetes. A package of anthropological indicators for disease prevention and prophylaxis has been proposed. The evidential material includes publications in refereed and non-refereed journals.
2. **Reconstructive and Aesthetic Surgery** Cephalometric studies of healthy children and adults of Bulgarian origin were conducted. The facial morphology was anthropometrically examined using a 3D laser scanner, and a database with various parameters applicable in maxillofacial and aesthetic surgery was created. The evidential material includes publications in refereed and non-refereed journals.

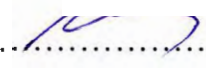
3. **Dental Medicine** A database of the parameters of clinical crowns of teeth in the contemporary Bulgarian population was created. Based on these parameters, dental and inter-dental indices were calculated, finding application in anthropology, forensic medicine, archaeology, and dental medicine. The evidential material includes publications in refereed and non-refereed journals.
  
4. **Forensic Medicine** Discriminant equations and scales for the humerus were configured, providing information on the individual contribution of each anatomical part and the most effective combination of anthropometric signs for determining sex. The evidential material includes publications in refereed journals.
  
5. **Other Directions in Medicine** Methods for measuring the articular surfaces of large joints were developed. Morphological variations of different muscles and nerves were established. The histomorphological characteristics of the intestinal mucosa in newborns with E.coli infection were examined. The role of macrolides in the treatment of Marseille fever was studied, and the effect of UDCA on M-cells in the intestinal mucosa was investigated. The evidential material includes publications.

### **Conclusion:**

Based on his teaching and educational activities, publications, and significant contributions, Assoc. Prof. Dr. Atanas Baltadzhiev, PhD, is a worthy candidate for the title of "professor". With his 25 years of academic experience, active role in education, and numerous significant studies in the field of anatomy, he demonstrates exceptional commitment and expertise. Assoc. Prof. Baltadzhiev is the author of over 66 original articles, three monographs, and 68 scientific reports, as well as a co-author of 10 textbooks and 8 study guides. His innovative research, such as the anthropometric characterization of patients with diabetes and the use of a 3D laser scanner for facial morphology, is of great importance for clinical practice. With over 140 positive citations and participation in 16 scientific juries, Assoc. Prof. Baltadzhiev significantly exceeds the minimum scientometric requirements for professor. His dedication to education and science, as well as his leadership skills, make him a valuable member of the academic community and deserving of the academic title "professor".

Based on all the above, I strongly recommend the esteemed jury to award the title of "professor" in the scientific field of 7.1. Health and Sports - Medicine to Assoc. Prof. Dr. Atanas Baltadzhiev, PhD, for the needs of the Department of Anatomy, Histology, and Embryology at MU Plovdiv.

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Prepared by:..........

/Prof. Dr. Ivan Maslarski/

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