

SHORT REVIEW

On: Competition for the occupation of the academic position “Professor” in the Area of Higher Education 4. Natural Sciences, Mathematics and Informatics, Professional Field 4.3. Biological sciences, Scientific specialty “Biochemistry”, announced by Sofia University “St. Kliment Ohridski“, in the State Gazette, number 63/30.07.2021 (correction in the State Gazette, number 65/06.08.2021)

by Prof. Tsvetanka Tsankova Marinova, MD, PhD, DMSc, Faculty of Medicine of Sofia University “St. Kliment Ohridski“

Information on the competition procedure

The competition for the occupation of the academic position "Professor" in the professional field 4.3. Biological sciences, Scientific specialty “Biochemistry”, is announced for the needs of the Department “Chemistry and biochemistry, physiology and pathophysiology” in the Medical Faculty of Sofia University “St. Kliment Ohridski“. The competition announcement was published in the State Gazette, number 63/30.07.2021 г. (correction in the State Gazette, number 65/06.08.2021).

The composition of the Scientific Jury was determined by an Order of the Rector No. p RD-38-486 of 28.09.2021 on the grounds of a decision of the Faculty Council of the Faculty of Medicine (Protocol No. 96/24.09.2021). One candidate participates in the competition: Associate Professor Albena Georgieva Jordanova, PhD.

The regulatory requirements for the competition procedure have been met. The short review was prepared in accordance with the Law on Development of Academic Staff in the Republic of Bulgaria (LDASRB), the Rules for the Implementation of the LDASRB and Section V-Terms and Conditions for Occupation of the Academic Position "Professor" of the Rules for the Conditions and Procedure for Acquiring Degrees and Occupation of Academic Positions at Sofia University "St. Kliment Ohridski“.

I declare that I have no common publications with the candidate submitted for this competition.

The applicant's documents are in compliance with the regulative requirements for admission and participation in the competition for the occupation of the academic position "Professor" at Sofia University "St. Kliment Ohridski". They are presented in sequence from No. 1 to No. 19 and include supporting evidence: Curriculum Vitae; Higher education diploma; Diploma for educational and scientific degree "Doctor"; Document for academic position "Associate Professor"; Certificate for work experience in the specialty; Reference to the indicators under art. 112, para 2; List of scientific publications (list of all publications and list of publications submitted for participation in the competition); List of participations in scientific forums; List of participations in projects; Reference according to the form for meeting the national minimum requirements for holding the academic position "Professor" with evidence; Reference of citations; Reference to original scientific contributions; Scientific papers submitted for participation in the competition; Summaries of peer-reviewed publications in Bulgarian and English; Copy of the announcement in the State Gazette; Other documents and materials about the candidate's activity.

Applicant's curriculum vitae and academic development

Associate Professor Albena Georgieva Jordanova, PhD was born in 1968 in Radomir. She obtained a Master degree in "Biochemistry and Microbiology" at the Faculty of Biology, Sofia University "St. Kliment Ohridski" (Diploma Series A-95, SU No 129281/ 21.08.1996).

Educational and scientific degree "Doctor" in the scientific specialty "Biophysics" (code 01.06.08) was acquired in 2007 (Diploma No. 31682/13.08.2007, Higher Attestation Commission). She was awarded the academic position of "Associate Professor" in 2012 (Diploma - Sofia University 2012-13 / 28.11.2012, Ministry of Finance, Sofia University "St. Kliment Ohridski").

Associate Professor Albena Jordanova works consecutively as a biologist - specialist, assistant and chief assistant (20.02.1995 - 01.10.2012) at the Faculty of Biology of Sofia University and the Institute of Biophysics and Biomedical Engineering,

BAS), and as an Associate Professor from 01.10.2012 until present in the Medical Faculty of Sofia University "St. Kliment Ohridski", Department "Chemistry and biochemistry, physiology and pathophysiology". During this period she performs diverse and highly responsible educational, administrative, teaching, organizational and expert activities.

Assoc. Prof. Jordanova is a Chairman of the National Commission for Organizing and Conducting the National Olympiad in Biology and Health Education. Since 2010, she has been the head of the National Biology Team and a member of the international jury of the International Biology Olympiad (IBO). Assoc. Prof. Jordanova has the most significant contribution to the excellent training of the National Biology Team and she received more than 35 high international awards (including 3 gold, 7 silver and 24 bronze medals). Assoc. Prof. Albena Jordanova is a member of seven national and international expert commissions, and three scientific organizations

Scientific research and scientometric data

The applicant's scientometric data, evaluated in their wholeness, are in compliance with the criteria and indicators recommended in the regulations for evaluation by the Scientific Jury at conducting a competition for "Professor". The scientific papers submitted for review are mainly from the area of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.3. Biological sciences, Scientific specialty "Biochemistry".

Dr. Albena Jordanova is the author of published and reported scientific papers with very significant contribution in the field of biochemistry, molecular biology, biophysics, medical pedagogy and pulmonology.

Her dissertation for the award of educational and scientific degree "Doctor" is on topic: "Surface properties and behavior of lipid liquid-crystalline phases", Sofia 2007, with supervisors Acad. of BAS Prof. Boris Tenchov and Corr. Member of BAS Prof. Zdravko Lalchev.

The total scientific production presented by Dr. Albena Jordanova includes: published scientific articles – 95 (32 publications of them in journals with impact

factor and 38 with Q rank/quartile according to the SJR (a total of 677 points); a monograph; reported scientific papers in international and national scientific forums - 158; textbooks - 13. Dr. Albena Jordanova has participated in 28 research projects.

Assoc. Prof. Albena Jordanova for her participation in this competition has presented: One monograph on "Alveolar surfactant - normal metabolism and pathology. In vitro methods for assessing the functioning of its condition ", University Publishing House" St. Kliment Ohridski", 2021, ISBN: 978-954-07-5294-5; 41 scientific publications (12 in scientific journals with quartile, a total of 224 points); reported scientific papers in international and national scientific forums - 72; 12 textbooks; 28 research projects (including as a leader – 10 projects), (all of them after the competition for the academic position of Associate Professor).

H-index: According to the data from Scopus, the Hirsch index of Dr. Jordanova is 7 and 9 - according to the data from Google Scholar. The total IF is 52.661 and individual IF is 15.876.

According to the information provided 226 citations are found in the *Scopus* and *Web of Science* databases (without self-citations).

Analysis of scientific contributions

The most significant contributions from the scientific work of Associate Professor Albena Jordanova are reflected in detail in the "Author's reference for the contributory nature of scientific works" attached to the documents of the competition. They have theoretical and applied medical-biological character.

Albena Jordanova's research interests are diverse: molecular mechanisms of interaction in model membranes; lipid polymorphism; examination of pulmonary maturity of premature infants; biochemical and biophysical methods for analysis of clinical samples in pulmonary pathologies (Appendices 10A, 11, 12, 13, 14)

The presented scientific works of Assoc. Prof. Jordanova are in the scientific field of the announced competition for the academic position "Professor" in the scientific specialty "Biochemistry" and cover mainly the following scientific and applied fields:

- Analysis of the structure and properties of the alveolar surfactant in normal and pathology;
- Examination of clinical samples from patients in order to assess the functional state of the lungs in various diseases;
- Study of intermolecular interactions in model biological membranes through modern highly informative laboratory methods;
- Optimization of biochemistry education at the Medical Faculty of Sofia University by introducing new experimental models and discussions of clinical cases;
- Increasing the knowledge and skills of the Olympians in biology by creating modern tests that develop logical thinking and solving complex scientific problems.

The most significant contributions from the research of Assoc. Prof. Yordanova are summarized in four groups:

1. Contributions of a fundamental nature

1. A. Original data were obtained from biochemical and biophysical studies of clinical samples from patients to assess the functional status of the lung in various diseases

1. B. New data on the nature of intermolecular interactions in model biological membranes through modern highly informative laboratory methods are presented.

2. Contributions of an applied nature

2. A. Original results were obtained for the metabolism of surfactants in normal and in pathology. The practical orientation of the described informative laboratory methods and the applied value of the obtained results for the clinical practice in pediatrics and pulmonology are proved.

2. B. Evidence for the applied value of the results of the study of intermolecular interactions in model biological membranes is presented.

3. Contributions to educational activity

New opportunities are offered to improve the theoretical and practical training of students in biochemistry. Textbooks for preparation in biochemistry of first and second year students of the master's program "Medicine" at the Faculty of Medicine at Sofia University "St. Kliment Ohridski", through which new forms and methods of training are introduced in order to optimize the educational process.

It has been shown that the various innovative educational methods lead to greater interest and better results in learning the material.

Dr. Albena Jordanova is registered in the Register of Scientific Activity at NACID. The comparative analysis of the minimum national requirements under Art. 2b of the Law on Higher Education in the field of higher education 4. Natural sciences, mathematics and informatics, Professional field 4.3. Biological Sciences with the attached reference to the real points of the candidate shows that Dr. Albena Jordanova meets the minimum national requirements for holding the academic position of "Professor".

The detailed analysis of the relevant groups of indicators **A/A**, **B/Б**, **C/В**, **D/Г**, **E/Д**, **F/E** of Dr. Albena Jordanova proves the following: Indicators **A** – 50 points (required 50 points) and **C** 100 points (required 100 points) meet the national requirements. Indicator **D** is 224 points at a minimum requirement of 200. Indicator **E** is 404 points at a minimum requirement of 100. Indicator **F** is 184.67 points with a minimum required value of 150 points for academic position "Professor".

The total number of points of Dr. Albena Jordanova is 962.67 with the minimum number as a national requirement for the academic position of "Professor" being 600 points. By group of indicators (**D**, **E** and **F**), Dr. Albena Jordanova's values exceed the national minimum requirements.

Teaching and lecturing activities

Assoc. Prof. Albena Jordanova is respected by her students and colleagues as a highly qualified and erudite lecturer. She is a teacher with excellent communication skills, highly motivated and dynamic. She has very significant experience in teaching the

subjects "Biochemistry" and "Peculiarities of metabolism in norm and pathology" in Bulgarian and English to students of Faculty of Medicine. She is a lecturer with very intensive and effective teaching work in the field of biochemistry.

Conclusion

Assoc. Prof. Albena Jordanova, PhD, participating in the competition for the academic position "Professor" is a highly qualified specialist, devoted teacher, very hard-working colleague with excellent ability to work in a team. She has significant scientific creativity and original contributions in the field of biochemistry, biophysics and molecular biology. Assoc. Prof. Jordanova shows consistency, perseverance and competence in all aspects of her research and teaching activities. The original scientific results obtained by Assoc. Prof. Albena Jordanova have an indisputable fundamental and applied character, with significance for medical practice.

The scientometric data of Assoc. Prof. Albena Jordanova are not only in compliance, but also exceed the minimum national requirements, normative criteria and indicators for evaluating the candidates when conducting a competition for the academic position "Professor".

The complex evaluation of her documents gives me grounds for a positive opinion. Therefore, I propose to the honourable members of the Scientific Jury to decide on the election of Associate Professor Albena Georgieva Jordanova, PhD for "Professor" in professional field 4.3. Biological Sciences, scientific specialty "Biochemistry" and occupation of this academic position at the Department "Chemistry and biochemistry, physiology and pathophysiology" in the Medical Faculty of Sofia University "St. Kliment Ohridski"

06th November 2021

Sofia

Member of the Scientific Jury:

(Prof. Ts. Marinova, MD, PhD, DMSc)