

## OPINION

by Academician Atanas Ivanov Pavlov, DSc, Professor at the University of Food Technology - Plovdiv, Professor at the Stephan Angeloff Institute of Microbiology at the Bulgarian Academy of Sciences (BAS),

on the materials submitted for participation in the competition to occupy the academic position of "Associate professor" at the University Prof. Dr. Asen Zlatarov - Burgas by field of higher education 4. Natural sciences, Mathematics and Informatics, professional division 4.2. Chemical sciences, scientific specialty "Biochemistry"

In the competition for "Associate Professor", announced in the State Gazette, no. 45 on 17.06.2022, and on the website of the University "Prof. Dr. Asen Zlatarov", for the needs of the Department of Physiology, Chemistry and Biochemistry at the Faculty of Medicine of the University, as the only candidate participated Chief Assistant Professor Engr. Yordan Nikolaev Georgiev, Ph.D., from the Institute of Organic Chemistry with the Center for Phytochemistry at the BAS, Laboratory of Biologically Active Substances – Plovdiv (LBAS-Plovdiv at IOCCP-BAS).

### 1. General description of the procedure and the candidate

By order No. RD-266 on 15.09.2022 of the Rector of the University "Prof. Dr. Asen Zlatarov" in Burgas, I have been appointed as a member of the Scientific Jury of a competition for the academic position of "Associate Professor" at the same university, in the field of higher education 4. Natural sciences, Mathematics and Informatics, professional division 4.2. Chemical Sciences, scientific specialty "Biochemistry", announced for the needs of the Department of Physiology, Chemistry and Biochemistry at the Faculty of Medicine.

One candidate submitted documents for participation in the announced competition - Chief Assistant Professor Engr. Yordan Nikolaev Georgiev, Ph.D., as noted above. The set of documents presented by Dr. Yordan Georgiev is in accordance with the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), its Regulations for Implementation and the Regulations for the Development of the Academic Staff of the University "Prof. Dr. Asen Zlatarov", and includes all required documents.

Chief Assist. Prof. Yordan Georgiev, PhD, graduated with a Bachelor's degree in Biotechnology at the University of Food Technologies in Plovdiv and Master's degree in Biopharmaceutical Biochemistry at the University of Plovdiv "Paisii Hilendarski" in 2013. He defended an educational and scientific degree Doctor of Philosophy in 2018 at the IOCCP-BAS,

in the scientific specialty Bioorganic Chemistry, Chemistry of Natural and Physiologically Active Compounds and thesis topic "Study of the structure and immunomodulatory potential of pectin-type acidic heteropolysaccharides in Bulgarian medicinal plants". Dr. Yordan Georgiev began his scientific career in 2011 at the University of Food Technology in Plovdiv, as an analytical chemist. Subsequently, in the same year, he became part of the staff of LBAS-Plovdiv at IOCCP-BAS, where until now he has successively held the positions of: analytical chemist (2011-2013), Assistant Professor (2016 -2018) and Chief Assistant Professor (2018 - present). In the period 2012-2018, he also worked part-time as a chemist at the Innovative Technology Center in Plovdiv. From 2018 to 2021, Dr. Georgiev was a part-time Assistant Professor in Biochemistry at the Medical University of Plovdiv. He is also a member of the team of the Center of Competence "Sustainable utilization of bio-resources and waste from medicinal and aromatic plants for innovative bioactive products" under the Operational Program Science and Education for a Smart Growth (OP SESG). Ch. Assist. Prof. Yordan Georgiev, Ph.D., has conducted 6 specializations abroad and 8 trainings in Bulgaria and abroad, which also includes attending lecture courses in the field of Experimental Biology at the Masaryk University in Brno (Czech Republic), which all has given a significant added value to his qualification as a scientist and teacher. According to the Scopus database (Author ID: 57191257065) Dr. Georgiev is a co-author in 25 refereed scientific papers and has an H-index of 9, excluding self-citations.

The candidate Dr. Yordan Georgiev has a total of 34 scientific works, of which 31 scientific publications (25 referenced in Web of Science and/or Scopus (WoS/Scopus) and 7 in other referenced databases), 1 popular science article and 1 chapter from a scientific book. Dr. Georgiev participated in the procedure with 19 scientific papers published after holding the academic position of "Chief Assistant Professor", which were accepted for review and included in the final evaluation. For a habilitation work - scientific publications in journals that are referenced and indexed in world-renowned databases with scientific information (WOS/Scopus), the candidate participates with 6 scientific papers that give 145 points, out of the minimum required 100 points. By component G. 7. List of scientific publications that are referenced and indexed in world-famous databases with scientific information (WOS/Scopus), outside of the habilitation work, the candidate applies 13 scientific papers, which are evaluated with 265 points, of the minimum required under G. 7 component 200 points. Dr. Georgiev is the first and corresponding author in 4 out of 6 included scientific publications for the habilitation work, and in the scientific publications outside the habilitation work he is not the first or corresponding author. He also applies evidence of participation in 13 research projects for the same period (out of his total participation in 17 research and 3 scientific-applied projects). The distribution of the scientific papers of the competition from relevant rubrics, abroad (referenced in WOS/Scopus), is as follows: 12 publications in journals from the first quartile; 4 publications in second quartile journals; and 3 publications in fourth quartile journals. The total impact factor of the publications

submitted for this competition is 82.94. Dr. Georgiev also presents a handbook "Teaching book in Biochemistry for medical students - Questionnaire for self-preparation for colloquiums" (140 pages), of which he is the only author.

## **2. General characteristics of the applicant's activity**

The publications presented in the current procedure, classified by rubrics above, as well as the teaching experience described below, define Dr. Georgiev as a well-built young, intensively working scientist and teacher. Confirmation of this statement is also the H-index of the candidate (9), as well as, the good citation of his scientific works (234 citations in journals referenced and indexed in WOS/Scopus, after holding the academic position of "Chief Assistant Professor"). These scientometric indicators would not have been achieved without adequate research funding. Ch. Assist. Prof. Dr. Georgiev was a project coordinator of 3 research projects out of 13 projects with which he participated in the procedure, one of them being international under the bilateral cooperation program between BAS and the Czech Academy of Sciences. The title of the project is "Investigation of the immunomodulatory effects and biochemical mechanisms of immunomodulation with herbal and fungal heteropolysaccharides" and the research work on it is directly related to Experimental Biochemistry. The candidate has also participated in a bilateral cooperation project between BAS and the University of Benha in Egypt, as well as in an international project under the COST program in the field of Biotechnology. The other projects in which Dr. Georgiev has participated are funded by the Scientific Research Fund of the Ministry of Education and Science, the National Program "Healthy Foods for a Strong Bioeconomy and Quality of Life", the National Program for Polar Research of the Sofia University "Kliment Ohridski" and OP SEIG. The candidate has also presented a list of 31 participations at scientific forums in Bulgaria and abroad, after occupying the academic position of "Chief Assistant Professor", of which 10 were oral presentations. Several participations of the candidate as a guest lecturer abroad (Czech Republic and Sweden) at specialized scientific forums in the field of biologically active polysaccharides also stand out. All above facts are of particular importance for increasing the recognition of Dr. Georgiev's scientific work among colleagues working in his field of study around the world.

The main thematic scientific profile of the candidate can be named "Chemical and biological characterization of polysaccharides isolated from natural sources" - a topic with a high degree of relevance and potential for development. In this regard, the candidate's contributions can be defined as "new to science" and "confirming previously stated hypotheses". I would especially like to note the work on elucidating the structural features and immunomodulatory effects of pectic polysaccharides, heteroglucans and fucogalactans, heteromannans and other complex polysaccharides, isolated from medicinal plants, edible mushrooms, yeasts and cyanobacteria, respectively.

The teaching qualification of Ch. Assist. Prof. Yordan Georgiev, Ph.D., can be defined as sufficient for this stage of his career - conducting laboratory exercises and seminars and participating in exam committees in Biochemistry for Bulgarian and foreign students from the specialties of Medicine, Dentistry and Pharmacy, in continuation in three academic years. The total horary of the teaching hours he deducted is 1428 hours, after occupying the academic position of "Chief Assistant Professor". The handbook in Biochemistry, prepared by Dr. Georgiev, is a useful guide for self-training of medical students with the aim of consolidating the knowledge from the lecture course and its use in specialized disciplines. He was the co-supervisor of a successfully defended Bachelor graduate in Biotechnology at the University of Food Technology in Plovdiv. The candidate has delivered several lectures on the application of spectral techniques for the study of polysaccharides and the biochemical mechanisms of immunomodulation with herbal polysaccharides in connection with the training of students and doctoral students in the country and abroad.

From the applicant's report on the fulfillment of the minimum requirements by groups of indicators for occupying the academic position "Associate Professor", in professional division 4.2. Chemical Sciences, at the University "Prof. Dr. Asen Zlatarov" - Burgas, a total of 1158 points are presented. The results achieved by Dr. Georgiev completely and punctually cover the minimum national requirements and the additional requirements of the University "Prof. Dr. Asen Zlatarov" in Burgas, to occupy the academic position of "Associate Professor".

### CONCLUSION

The documents and materials presented by Chief Assistant Professor Engr. Yordan Nikolaev Georgiev, Ph.D., meets all the requirements of the LDASRB, the Regulations for the implementation of the LDASRB and the relevant Regulations of the University "Prof. Dr. Asen Zlatarov", Burgas.

The candidate in the competition has submitted a sufficient number of scientific papers (19 pieces), published after the materials used in the defense of the educational and scientific title Doctor of Philosophy and occupying the academic position "Chief Assistant Professor". The candidate's works contain original scientific and applied contributions that have received international recognition, all published in refereed and indexed journals in WOS/Scopus. **The scientific and teaching qualifications of ch. Assist. Prof. Dr. Georgiev is unquestionable.**

The results achieved by the candidate in the research activity, as well as the teaching activity, **fully correspond** to the specific requirements of the Regulations of the University "Prof. Dr. Asen Zlatarov" - Burgas for the application of LDASRB.

After introduction of myself with the materials and scientific works presented in the competition, analyzing their significance, the contributions contained in them, and taking into account the teaching qualifications, I find it reasonable to give **my positive assessment and to**

**recommend** to the Scientific Jury to prepare a report-proposal to the Faculty Council of Medical faculty at the University "Prof. Dr. Asen Zlatarov" in Burgas for the election of Chief Assistant Professor Engr. Yordan Nikolaev Georgiev, Ph.D., in the academic position "Associate Professor", in the field of higher education 4.0. Natural sciences, Mathematics and Informatics, professional division 4.2. Chemical sciences, scientific specialty "Biochemistry".

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11 November 2022

Plovdiv, Bulgaria

**Signature:** \_\_\_\_\_

/Academician Atanas Ivanov Pavlov, DSc/