REVIEW

by Dr. Penka Angelova Moncheva, prof., SU "St. Kliment Ohridski" - Faculty of Biology

on the materials submitted for participation in a competition for the academic position of "associate professor" at Sofia University "St. Kliment Ohridski"

in Professional field 4.3. Biological Sciences (Microbiology)

In the competition for "Associate professor", announced by Sofia University (SU) "St. Cl. Ohridski" in the SG, №. 56/30.06.2023 for the needs of the Faculty of Medicine (FM), Assistant Professor Dr. Lyubomira Dimitrova Yocheva from the FM is the only applicant that submitted document for this competition.

1. General presentation of the received materials

By order No. RD-38-541 / 15.09.2023 of the Rector of SU "St. Kl. Ohridski" I have been appointed as a member of the scientific jury of a competition for the academic position of "Associate professor" at the SU in professional field 4.3. Biological Sciences (Microbiology), announced for the needs of the Faculty of Medicine.

The presented materials by Assistant Professor Dr. Lyubomira Yocheva, the only candidate for this competition, are very precisely prepared and in compliance with the requirements of the Act for the Development of the Academic Staff in Republic Bulgaria, Regulation for its application and The Regulations on the terms and conditions for acquiring scientific degrees and occupying academic positions at SU "St. Kliment Ohridski" and includes: an application, a curriculum vitae, the diplomas required for the case, a certificate of work experience (including a work book), a list of all scientific works, list of citations of scientific works, list of scientific works for participation in the competition for the academic position "Associate professor", reference for the compliance with the minimum national requirements, annotation of scientific works subject to review (in Bulgarian and English), self-evaluation of the original scientific contributions, reference for the indicators under Art. 112/2, related to the candidate's educational and research activities, reference to the candidate's scientific contributions from the database "Authors" of the SU, scientific works subject to review and other documents certifying the candidate's participation in various academic activities.

Assistant professor. Dr. Lyubomira Yocheva, has presented a list of a total of 59 scientific works, of which scientific publications - 55, a textbook and manuals for laboratory work - a total of 4, a list of participation in scientific forums - 45, a list of scientific research projects - 15. For participation in the competition for the academic position "Associate professor" Dr. Yocheva has submitted 45 scientific publications, textbook and manuals for laboratory works - 4, 36 participations in scientific forums, 15 scientific projects. The distribution of scientific works related to the present competition is as follows:

- Scientific publications in refereed journals and indexed in world-famous databases with scientific information (Web of Science and Scopus) -23.
- Publications in journals and proceedings of scientific conferences without impact factor/impact rank 22.

From the review of the submitted documents for the competition, it can be seen that Dr. Yocheva meets and even exceeds the minimum national requirements for the academic position "Associate professor" in accordance with Act for the Development of Academic Staff in Republic of Bulgaria in professional field 4.3. Biological sciences (Microbiology) as follows:

	Contents	Requirements for the	Fulfillment by the
Group of		academic position	candidate
ndicators		"Associate Professor"	
A	Indicator 1	50	50
В	Indicator 4	100	105
С	Sum of indicators from 5 to 10	200	239
D	Sum of points in indicator 11	50	78
Е	Sum of indicators from 12 to the end	-	57
Total		400	529

I must note that in the table for covering the minimum national requirements, Dr. Yocheva did not include all the received citations, which are almost three times more than required (according to the Certificate from the Information Services at the University Library of SU, attached to the documents for this competition).

2. Brief biographical data about the candidate

Associate Professor Dr. Lyubomira Yocheva graduated from the National Secondary School in Nature and Mathematics in Sofia in 1981 as a silver medalist. In 1986, she obtained a Master's degree in "Molecular and Functional Biology", qualification: Biochemist-microbiologist, specialization: Microbiological, pharmaceutical and agro-

preparation productions in the Faculty of Biology at SU "St. Cl. Ohridski". In the period 1988-1993, she was a full-time doctoral student in the Faculty of Biology of the SU, Department of General and Industrial Microbiology. After successfully dissertation defense on "Biological characterization of a strain of *Streptomyces galbus* (F) subsp. *achromognes* 695, chemical nature of antibiotic 695 and optimization of conditions for its biosynthesis" she received the educational and scientific degree "Ph.D". In the period 1996-1998, she worked as a technologist-microbiologist in the "Bread Production and Baby Foods" section at the Institute of Cereals and Forage Industry at the Agricultural Academy. From 1990 to 2000, she was a research assistant at the NBIMCC, and from 2001 to 2006 – in The Institute of Cryobiology and Food Technologies at the National Center for Food Technologies. Meanwhile, from 2002 to 2006, she was a part-time assistant in the Department of General and Industrial Microbiology at the Faculty of Biology of SU. From 2006 to the present, Dr. Yocheva has been successively assistant and assistant professor in the Faculty of Medicine at SU in the Department of "Biology, Medical Genetics and Microbiology". In the period 2006-2019 she also worked on a second employment contract as a medical specialist – assistant professor in the clinical microbiological laboratory of Lozenets Hospital. In the period from 2011 to 2015, she completed a post-graduate specialization course at the Faculty of Medicine at SU and acquired the specialty "Microbiology" (for microbiologists and biologists).

Dr. Yocheva's education has been related to biology and microbiology since secondary school, and her professional realization goes through different areas of microbiology, which has contributed to her broad specialization in this science. This has undoubtedly provided her with opportunities for research and teaching activities in various field in microbiology.

Dr. Yocheva is a member of the Union of Scientists in Bulgaria, the Microbiology section of USB, as well as the Association of Microbiologists in Bulgaria.

3. General characteristics of the candidate's academic activity

3.1. Evaluation of educational and pedagogical activity

The teaching activity of Dr. Yocheva started in 2002 at the Faculty of Biology of the SU as a part-time assistant. During this period (2002-2006), she conducted a total of 862 hours of exercises in the educational and qualification degree (EQD) "Bachelor" for students of the specialty "Biology" in the discipline "Microbiology with Virology" and a Summer training practice for students of the specialty "Biotechnologies" (regularly and distance learning), and 36 hours of exercises in the Taxonomy of Microorganisms (part Actinomycetes) in the EQD "Master", Master program (MP) "Microbiology and Microbiological Control". After she started working at the Faculty of Medicine of the SU (from 2006), she continued to teach microbiology classes at the Biological faculty as follows: in EQD "Bachelor - a total of 1494 hours for the specialty Biology, Geography and Biology, Biology and Chemistry and 332 hours of Summer training practice for the specialty Biotechnologies; in the EQD "Master: - 310 hours of exercises in "Taxonomy of Microorganisms" in the MP "Microbiology and Microbiological Control", 18 hours of lectures and 9 hours of exercises in Immunodiagnostics of pathogens in the MP "Biochemistry" (for the 2017/2018 academic year), and from 2018/2019 until now 162 hours of lectures and 40.5 hours of exercises in Bulgarian, and 36 hours of lectures and 9 hours of exercises in English in the discipline Defense mechanisms in bacterial infections for the same master's program. In addition to the Faculty of Biology, from the 2013/2014 academic year until now, Dr. Yocheva has conducted 240 hours of exercises in microbiology for the specialty "Optometry", EQD"Bachelor" and "Master" in The Faculty of Physics at SU.

After the start in the 2008/2009 academic year of microbiology training in the Faculty of Medicine at SU and until now the total classroom employment of Dr. Yocheva amounts to 7149 hours of exercises, of which 4464 hours of exercises in Microbiology for students in "Medicine", 2565 hours of exercises in Microbiology for students in the specialty "Medicine in English", 120 hours of exercises in Virology in the discipline "Microbiology, parasitology and virology" for students of the specialty "Nursing". For the last 5 academic years in the Faculty of Medicine, she has a total of 4372.7 hours academic employment, of which 3934.3 hours classroom, i.e. average academic employment of 874.4 hours, of which 786.9 classroom employment. I believe that her academic employment is quite serious, and exceeds more than 2 times the mandatory one.

Dr. Yocheva is the author of a curriculum (in Bulgarian and English) on the discipline Defense Mechanisms in Bacterial Infections for the MP "Biochemistry" at the Faculty of Biology of SU.

Under the scientific co-supervision of Dr. Yocheva, 3 students from the MP "Microbiology and Microbiological Control" at the Faculty of Biology have successfully defended their diploma theses.

Dr. Yocheva is the co-author of 1 textbook on Food Microbiology (for the students in MP "Microbiology and Microbiological Control" and "Food Quality and Safety" at the Faculty of Biology) and 2 manuals for practical classes in microbiology for students at the Faculty of Medicine (in Bulgarian and English), published by University Publishing House "St. Kl. Ohridski" The manual in Bulgarian is in two editions (2013, 2016), the second of which has been revised and supplemented.

Dr. Yocheva is regularly included in the examination committees as an evaluator during the candidate student campaigns, incl. and for foreign students, as well as in a committee for evaluating written works of students from the

module "Talented Biologist" in the National Competition in Natural Sciences and Geography "Acad. Lyubomir Chakalov", as a representative from SU.

The review and analysis of Dr. Yocheva's educational and teaching activities give me reason to conclude that she is an well-established university teacher, with more than 20 years of teaching experience, specializing in teaching in the field of microbiology - general and medical, but also in related disciplines such as Immunodiagnosis of Pathogens and Defense Mechanisms in Bacterial Infections, which address more specific problems in medical microbiology. I would like to point out that a prerequisite for the spectrum of disciplines taught by Dr. Yocheva is her extensive university education in the Faculty of Biology at SU and a post-graduate specialization in Microbiology (for microbiologists and biologists), acquired in the Faculty of Medicine at the same university, during which she has listened to and passed exams on 21 specialized lecture and practical courses in the field of medical microbiology.

3.2. Evaluation of the scientific and scientific-applied activity

For participation in the competition Dr. Yocheva has presented 45 scientific publications that are in the scientific field of the competition for the academic position "associate professor" in professional field 4.3. Biological Sciences (Microbiology) and can be attributed to 4 scientific directions, as well as 36 poster and oral presentations at scientific forums (national and international):

Antimicrobial activity of naturally produced biologically active substances and nanomaterials. The works reflecting the results of Dr. Yocheva's research in this direction are 21 publications (I.1 - I.8); I.10, I.11, I.16; I.19; I.22, I.23, II.24; II.37; II.38; II.40-II.43) and 16 announcements at scientific forums (IV.1; IV.2; IV.4; IV.5; IV.7; IV.8; IV.9; IV.11; IV.13; IV.15; IV.20; IV. 27; IV.32; IV.33; IV.35; IV.36). Fourteen of the publications are in refereed journals indexed in world-renowned databases of scientific information. This scientific direction unites publications in 4 different areas: A. Antimicrobial activity of biologically active substances produced by medicinal plants, microalgae and cyanobacteria - the main publications included in the habilitation work under indicator B 4 are focused in this area; B. Antimicrobial potential of lactic acid bacteria; C. Studies on the biology of streptomycetes, producers of biologically active substances; D. Antimicrobial activity of newly synthesized or commercial nanomaterials.

Isolation and characterization of bacteria of importance in food technology and biotechnology. The papers reflecting the results of Dr. Yocheva's research in this direction are 13 publications (I.12, I.17, I.18, I.20, I.21, I.44, II.25, II.32 - II.34; II.39, II.44, II.45) and 11 announcements at scientific forums (IV.16 - IV.19; IV.26 - IV.31; IV.34). Six of the publications are in refereed journals indexed in world-renowned databases of scientific information. This direction unites scientific publications in the following areas: **A.** Microflora of spontaneous fermentation of chickpea grains (*Cicer arietanum* L.); **B.** Microflora of rye sourdough/dough; **C.** Microflora of raw dried sausages.

Sanitary-microbiological assessment of water for drinking and domestic needs. To this scientific direction 2 publications in refereed journals, indexed in world-famous scientific information databases (I.13, I.14) and 2 announcements at scientific forums - one report and 1 poster presentation (IV.3, IV.10) are included

Distribution of some bacterial and viral infections in Bulgaria and their relationship with inflammatory, allergic or autoimmune diseases. Research in this direction is reflected in 5 publications (I.15, II.26 - II.29) and 6 announcements at scientific forums - 2 reports and 4 posters (IV.12, IV.14, IV.21 - IV.24).

Of the 45 scientific papers presented, 34 were published in English, and the remaining 11 in Bulgarian. Twenty-three (23) of the papers (about 51%) were published in international refereed scientific journals indexed in world-renowned scientific information databases with a total IF =16.108 and SJR=5.985. Among the journals I would mention *Frontiers Plant Science* (IF=6.627), *Life* (IF=3.253), *Chemical Papers* (IF=2.146), *Acta Chimica Slovenica* (IF=1.524). The distribution of Dr. Yocheva's scientific publications depending on the quartile of the publishing journal is as follows: 1 publication. - in Q1 journal, 2 - in Q2, 13 - in Q3 and 7 - in Q4. The remaining publications (22 items) were published in journals, annual books and books of abstracts of scientific forums, which are not indexed in world-renowned databases with scientific information.

All submitted scientific publications for participation in the competition for the academic position "Associate professor" (45 items) are collective, and Dr. Yocheva is the first author of 9 of them.

Dr. Yocheva's scientific research has received recognition from the international scientific community through their citations. According to the official report presented by the Information Department of Library at SU "St. Cl. Ohridski" the received citations (auto-citations are excluded) are as follows: according to Web of science data, the citations are 142 for 18 of her indexed publications with h-index - 3; according to Scopus data - 137 citations for 24 indexed publications, h-index - 3 (according to my check in Scopus, the h-index is 4); according to data from Google Science - 286 citations, h-index - 6. Publications from all scientific directions of Dr. Yocheva's research activity are cited. Scientific studes published in non-indexed journals, annual books and books of abstracts of scientific conferences have

also received quite a few citations in publications referenced and indexed in world-renowned databases of scientific information (reflected in Google Science).

3.3. Project activity

Dr. Yocheva was the leader or participant in the working team of a total of 15 scientific projects, thematically related to the scientific field of the current competition. She is the leader of 4 projects financed by the "Scientific Research" fund of SU "Sv. Kl. Ohridski". One of these projects is active. In the remaining 11 projects, she is a participant in the work team. Seven of them are financed by SU, and the remaining 4 participations are in projects and programs financed by the Ministry of Education and Science.

The review of Dr. Yocheva's scientific and research activity shows that the types of activities and the scope of research in the scientific institutes in which she has worked so far, have formed the profile of her overall scientific work, characterized by studies in several directions of microbiology. I believe that the results of her scientific activity are significant and have been positively evaluated by the scientific community through the received citations.

3.4. Contributions (scientific, scientific-applied, applied)

The scientific works of Dr. Yocheva contain contributions to various areas of the scientific directions of her research. The contributions are well differentiated and I fully agree with their formulation in the presented reference. Below I will note in a more general form, the more significant of them in scientific directions of research.

Contributions to the field of antimicrobial activity of naturally produced biologically active substances and nanomaterials

This scientific direction combines research on the antimicrobial activity of naturally produced biologically active substances from various organisms (plants, microalgae, cyanobacteria, streptomycetes) as well as nanomaterials. The achieved results are a scientific and scientific-applied contribution to strategies for the search antimicrobials and other biologically active substances of natural origin.

- The antimicrobial spectrum of extracts and fractions from several plant species (*Hypericum rochelii*, *Nepeta nuda*, *Stachys thracica*) was determined against a panel of Gram-positive and Gram-negative bacteria and *Candida albicans*. The obtained results are a contribution to the currently available scientific information on the antimicrobial properties of the indicated plant species.
- ✓ For the first time, a comparative study of the antimicrobial activity of *in situ* wild plants, *in vitro* and *ex vitro* cultivated plants from the species *Stachys thracica*, *S. bulgarica* and *S. scardica* was performed. Comparable results were obtained for plants cultivated by the three methods. These results provide an opportunity to develop an alternative approach to obtain antimicrobial substances from plants grown *in vitro* or *ex situ*, instead of using and destroying wild species, some of which are rare species.
- A contribution to the search for antibacterial substances inhibiting or modulating biofilm formation of methicillin-resistant *Staphylococcus aureus* strain is the established antibacterial potential of some *Stachys thracica* extracts. At the same time, an assumption was made about the possible mechanisms of the antibacterial action of the active extracts on the formation of biofilm by these bacteria, as inhibition of the expression of one of the genes (icaD gene) related to the synthesis of the intercellular matrix of the biofilm was demonstrated by RT-qPCR.
- ✓ The spectrum of action of fractions and extracts from the biomass of a newly isolated strain *Coelastrella* sp. BGV. and the culture medium of cyanobacteria *A. africanum*, *N. commune* and *Chroococcus* sp. R-10 against Gram-positive and Gram-negative bacteria and *Candida albicans* was determined. The obtained results complement the antimicrobial characteristics of the green microalgae of the genus *Coelastrella* and are an original contribution to the complete characterization of the Bulgarian strain *Coelastrella* sp. BGV as a potential producer of substances with antimicrobial effect in addition to already proven antitumor and antioxidant activity. Regarding the studied cyanobacteria, the results are confirmatory, but they are an original contribution in relation to the newly isolated Bulgarian strains and could be a basis for selecting good producers.
- ✓ As a result of a large-scale screening of the inhibitory properties of lactic acid bacteria, it has been confirmed that lactic acid synthesis is the main inhibitory mechanism. Based on the obtained results, 7 strains belonging to 6 species of lactic acid bacteria of the genus *Lactobacillus* were selected and proposed for the production of probiotic and starter cultures or for use as biopreservatives. The obtained results are a justification for the inclusion of these strains in probiotic formulas and production of preparations for children and adults, including all preparations of the Lactoflor series (KendyPharma).
- The chemical composition of an antibiotic complex produced by *Streptomyces flavovirens* strain 67 isolated from Antarctic soils was determined. Through chromatographic and mass spectrometric studies, it was established that the three main fractions of the complex are antibiotics from the actinomycin group.

- ✓ Evidence has been obtained that the introduction and reaching a certain level of some amino acids in the culture medium and mycelium initiates the process of antibiotic formation and changes the chemical composition and the ratio of the components in the actinomycin complex produced by *Streptomyces galbus* (F) subsp. 695.
- ✓ The antibacterial effect of newly created nanocomposites of reduced graphene oxide and its combinations with silver and copper was investigated. The key role of the size and shape of the nanoparticles for the effectiveness of their inhibitory effect has been confirmed. From a practical point of view, these studies shed light on the effectiveness of applied approaches for the synthesis and combination of metals and metal oxides in the development of new nanomaterials for medical applications.
- ✓ A comparative study of the biological activity of original newly synthesized graphene nanocomposites with nanosized zinc oxide in combination with metal nanoparticles (copper and silver) dispersed in collagen suspensions was conducted. It was established that the chemical composition of the metal nanoparticles in the combined nanocomposites has a decisive role for their antibacterial effect. The role of collagen proteins for the better dispersion of the nanoparticles and prevention of their agglomeration is confirmed.
- ✓ A comparative assessment of the antibacterial effect of commercial nanoparticles (selenium, gold, iron oxide, silicon oxide and graphene oxide) in the form of dispersions was made. A concentration-dependent effect of the studied particles on their antibacterial activity was established. The obtained results give reason to believe that nanoparticles of gold and iron oxide in low concentrations can be successfully used as a delivery system for drugs and antibiotics, and in higher concentrations they could act as antibacterial agents.
- ✓ For the first time, studies of the microflora of Bulgarian rye sourdough starters from different geographical regions of the country were carried out, including dynamics of microbial population, species identification and establishment of strains of lactic acid bacteria meeting the *in vitro* criteria for the selection of probiotic cultures with potential application for the development of grain-based dietary functional foods.
- For the first time, active chick-pea yeast has been shown to be a mixed microbial population including representatives of the genera *Clostridium* and *Bacillus*. The dynamics of their ratio in the population determines the stages of yeast maturation. It has been proven that representatives of the genus *Clostridium* have a decisive role in obtaining yeast with good technological qualities. The first collection of clostridia involved in chick-pea fermentation was created and the influence of long-term storage on their technological qualities was investigated.
- ✓ The technological scheme for obtaining an active starter culture and preparation of simids has been restored, described and published, with the potential for use by small bakeries and reviving the authentic production.
- ✓ For the first time, a complete microbiological analysis of a naturally fermented Bulgarian raw-dried sausage Panagyurska lukanka was carried out during all stages of the product's ripening. For the first time, the presence of lactobacillus strains producing substances with a bacteriocin-like nature has been demonstrated.

Sanitary-microbiological assessment of water for drinking and domestic needs

- ✓ For the first time, a sanitary-microbiological assessment of Bulgarian bottled mineral water from three brands for different storage periods was carried out, which confirmed that compliance with the rules of good production practice during bottling enables long-term storage of mineral waters without deviation from sanitary-microbiological norms.
- ✓ For the first time, a one-year sanitary-microbiological monitoring of mineral water with public access to the springs in Bankya, Gorna Banya and Kom was carried out, by tracking the seasonal dynamics in the number of heterotrophic bacteria, as a result of which ozonation of the water from Kom was proposed before bottling

Spread of some bacterial and viral infections in Bulgaria and their relationship with inflammatory, allergic or autoimmune diseases

- ✓ For the first time in our country, a study on the serological prevalence of *Helicobacter pylori* in asymptomatic children was conducted, which confirms that the infection occurs mainly in early childhood (most often as an asymptomatic form) and that the percentage of infection increases with age. The obtained results define Bulgaria as a country with rather low indicators of infection among asymptomatic children.
- ✓ Results were obtained showing higher *H. pylori* seropositivity in patients with psoriasis (inflammatory dermatosis with non-autoimmune genesis) compared to the healthy control group. These results are a basis for further research for clarification of the relationship between *H. pylori* infection and the pathogenesis of psoriasis.
- ✓ Based on results obtained for a significant prevalence of specific serum antibodies to *Herpes simplex* virus1 (HSV-1) and *Epstein-Barrvirus* (EBV) antigens in patients with autoimmune bullous dermatoses (AIBD) compared to a control group of patients diagnosed with psoriasis and control group of healthy individuals, the involvement of HSV-1 and EBV in the pathogenesis of AIBD is suggested with high probability.

Contributions to academic education

- The co-authored textbook and the two manuals on microbiology (in Bulgarian and English) are a contribution to academic education, as in this way the students of the Faculty of Biology and the Faculty of Medicine at SU have access to modern knowledge in specific disciplines from the curricula, which is a prerequisite for a good university education.
- ✓ The textbook "Food Microbiology Microbiology of Fresh Foods" is intended for students of MP "Microbiology and Microbiological Control" and "Food Quality and Safety" at the Faculty of Biology. In addition to being a textbook, it can be used by a wide range of students from various specialties, doctoral students, teachers, etc. as a source of additional knowledge.
- ✓ The manuals of microbiology are compiled in accordance with the Microbiology curriculum in the Faculty of Medicine at SU "Sv. Kl. Ohridski". Questions for preliminary preparation of the students, a description of the practical work and demonstrations and a protocol for reflecting the results of the assigned tasks, as well as control questions, are provided for each practical lesson on the relevant topic. Structured in this way, the manuals stimulate students' interest in practical classes in the discipline.

4. Evaluation of the candidate's personal contribution

The documentation presented by Dr. Yocheva, together with the attached scientific works, show her personal contribution to the experimental design, the analysis of the obtained results, the interpretation and the definition of the basic scientific and scientific-applied contributions, which are presented in great detail. The scientific works are collective, which is normal for this professional field, but everywhere the personal contribution of Dr. Yocheva is clearly distinguishable, given her specialization in different areas of microbiology, obtained in the course of her career development.

5. Critical remarks and recommendations

I have no critical remarks and recommendations to the materials and documentation submitted by the candidate for participation in the competition, as well as to her overall academic activity.

6. Personal impressions

I know Dr. Lyubomira Yocheva for more than 30 years, when she was a doctoral student in the Department of General and Industrial Microbiology of the Faculty of Biology at SU, and then a part-time assistant in Microbiology and Taxonomy of microorganisms. I can confidently say that she is a very well-prepared and dedicated microbiology teacher, conducting her classes responsibly, with a lot of attention to students, for which she received recognition from them in return. Dr. Yocheva is extremely ethical both in her scientific work and in her relationships with colleagues.

CONCLUSION

The documents and materials presented by Assistant professor Dr. Lyubomira Yocheva, for participation in the competition for the academic position "Associate professor", meet all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, The Regulations for its application, and The Regulations on the terms and conditions for acquiring scientific degrees and occupying academic positions at SU "St. Kliment Ohridski".

The candidate in the competition has presented a sufficient number of scientific papers and convincing evidence of her scientific, scientific-applied and teaching skills, which show the very good quality of her overall academic activity. All this allows me to confirm my positive assessment given by me in the analysis of all sides of the academic activity of Dr. Yocheva and convincingly to recommend to the respected scientific jury, formed by order no. Rd-38-541 / 15.09.2023 of the Rector of SU "St. Kl. Ohridski" to prepare a report-proposal to the Faculty Council of the Faculty of Medicine at SU "St. Kl. Ohridski" for the election of Assistant Professor Dr. Lyubomira Dimitrova Yocheva in the academic position "Assistant professor" in the Area of higher education 4. Natural sciences, mathematics and informatics, Professional field 4.3. Biological sciences (Microbiology).

30.10. 2023 Sofia Reviewer: (prof. Dr. Penka Moncheva)