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MEDICAL UNIVERSITY - VARNA "Prof. Dr. Paraskev Stoyanov"

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TO the Chairman of the Scientific Jury, appointed at the First Meeting of the Scientific Committee from 05.09.2023 on the occasion of Order No. **251/12.06.2023** of the Director of the National Center for Contagious and Parasitic Diseases

OPINION

REGARDING: Competition for the academic position "Associate Professor" in the scientific specialty "Immunology" in the field of higher education 4. Natural sciences, mathematics and informatics direction 4.3. Biological sciences for the needs of the "Immunology" Department of the National Center for Contagious and Parasitic Diseases, with the decision of the Scientific Council, announced in the State Gazette no. 54/23.06.2023.

PREPARED STATEMENT: Assoc. Prof. Dr. Trifon Georgiev Chervenkov, PhD, Associate Professor of Clinical Immunology at the Department of "Medical Genetics", Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, *Member of the Scientific Jury* according to Order No. 251/12.06.2023 of the Director of the National Institute for Contagious and Parasitic Diseases and appointed as an *external member preparing an opinion* according to Protocol No. 1 of 05.09.2023 of the First absent meeting of Scientific Jury.

CANDIDATES: Head assistant professor Radoslava Emilova Grozdanova, PhD - the only candidate

The documents prepared by the candidate have been prepared in accordance with the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria (ZRASRB), the Regulations to it and the Regulations for the implementation of the ZRASRB of the National Center for Contagious and Parasitic Diseases.

I. Brief biographical and career data for the applicant

Born on 1.04. 1978 in the town of Pernik.

1997 - 2003 "St. Kliment Ohridski" University of Sofia - Sofia, Faculty of Biology, master's degree in biology

2003 - 2004 Saint Magdalena Medical Center - Pernik, Clinical Laboratory, Biologist (diagnostic activity, laboratory management, scientific activity)

2005 - 2013 SBALDB - EAD "Professor Ivan Mitev" - Sofia, Biologist (national screening programs and functional endocrine diagnostics)

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2011 Course "Methodology of Scientific Research" - FOZ, MU-Sofia

2011 - 2023 SBALDB-EAD "Professor Ivan Mitev" - Sofia, Cytogenetic Laboratory (diagnostic activity, laboratory management, scientific activity)

2010 - 2014 SU "Sveti Kliment Ohridski" - Sofia, Faculty of Biology, PhD, thesis topic: "Role of mediators of perivascular adipose tissue for arterial contraction"

2012 - 2013 "St. Kliment Ohridski", Faculty of Biology, holding a full cycle of exercises in "Animal and Human Physiology" with undergraduate students from various specialties - horary 105 hours

2013 Course "Modern molecular genetic methods" Course Center for molecular medicine MU-Sofia

2016 - 2023 NCSPB, Department of "Immunology", conducting exercises and seminars from courses for SDO in - horarium 107 hours

2016 Flow cytometric course immunophenotypic analysis for beginners Course NCZPB

2016 Course "Molecular-biological methods for the diagnosis of viral infections" - NCZPB

2016 Course "Selected topics of clinical immunology" Course NCZPB

2016 Course "Laboratory methods for the study of cellular immunity" Course NCZPB

2016 Course "Specific prevention and therapy of viral diseases" Course NCZPB

2016 - continues NCSPB, Sofia, National Reference Laboratory of Immunology (NRLI), Chief Assistant (diagnostic activity, reference activity, scientific activity)

2017 Course " Diagnosis and prognosis biomarkers in global health ", Institute Pasteur, MOOC: Massive Open Online Course

2017 Course " Innate Immunity ", Institut Pasteur, MOOC: Massive Open Online Course

2018 Course "Tuberculosis", Institut Pasteur, MOOC: Massive Open Online Course

2018 Course "HIV Science", Institut Pasteur, MOOC: Massive Open Online Course

2018 Course "Application of statistical methods for data processing and analysis from medico-biological studies" Course NCZPB

2021 Course "Viral phylogeny and molecular epidemiological methods for surveillance and control of viral diseases" Course NCZPB

2022 – **2023** University "Prof. Dr. Asen Zlatarov, Faculty of Biology, holding a full cycle of exercises in "Medical Genetics" with students majoring in "Medicine" - 70 hour course

2023 Course "Modeling of Infectious Diseases", Institute Pasteur, MOOC: Massive Open Online Course **2023** Course "Human Population and Evolutionary Genetics", Institut Pasteur, MOOC: Massive Open

Online Course

2023 - continues Medical University - Sofia, Specialist in "Biochemistry"

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II. Research activity

The activity was evaluated in accordance with the minimum national requirements for ASSOCIATE PROFESSOR on the basis of Art. 26 of ZRASRB dated 23.12.2022 and art. 51a. (1) according to the fulfillment of the conditions under Art. 47 and in accordance with the results of the inquiries under Art. 50, para. 2 of the Regulations for the implementation of the RSARB of the NCZPB from 31.10.2018.

- 1. To have an educational and scientific degree "doctor" according to **indicator A (50 points)**; **completed 50 points**. Head assistant professor Radoslava Emilova Grozdanova obtained an educational and scientific degree DOCTOR in direction 4.3. Biological Sciences (Animal and Human Physiology) after a successfully defended dissertation on the topic "Role of mediators of perivascular adipose tissue on arterial contraction" at the Faculty of Biology of Sofia University "St. Kliment Ohridski", with diploma No. SU 2014-119 of 20.10.2014.
- 2. To have a minimum of 100 items for a group of indicators from group C through habilitation work or equivalent scientific publications, referenced in Scopus and/or Web of Science.

Completed - with a total of 100 points - the candidate has indicated 5 articles referenced in Scopus and/or Web of Science as equivalent to a habilitation thesis (indicator 4). Of the listed articles, 1 is in Q1 (25 items), 3 in Q2 ($3\times20=60$ items) and 1 in Q3 (15 items).

3. To have a minimum of 200 points for group D indicators.

Completed - sum of indicators 5-9 with a total of 369 points as follows:

Indicator 7 - 339 points acquired from articles and reports published in scientific publications, referenced and indexed in a global database of scientific information. The candidate has listed 3 publications in SJR Q1, 3 publications in SJR Q2, 2 publications in SJR Q3, 16 publications in SJR Q4, of which 7 in journals with IF and 9 in refereed without IF.

Indicator 8 - 30 points gained from a published chapter of a collective monograph. The applicant has specified two chapters.

4. To have at least 50 points of citations for group E indicators

Completed – sum of indicators 10 - 12 with a total of 328 points as follows:

Indicator 11 – 164 citations in peer-reviewed monographs and collective volumes.

With a total of 164 citations and 328 points, the minimum requirements of 50 points are **many times exceeded!**

5. To have a minimum of 50 items for F indicators group.

Completed - sum of indicators 13-22 with a total of 194 as follows:

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Indicator 14 - 150 points for participation in a national scientific or educational project. The candidate has indicated participation in 15 national research projects.

Indicator 15-20 points for participation in an international scientific or educational project. The candidate has indicated participation in 1 international research project.

Indicator 16 - 20 points for management of a national scientific or educational project. The candidate has indicated management of 1 project.

Indicator 18 - 4 points for attracted funds for projects managed by the applicant. The candidate has indicated attracted funds of BGN 20,000.

Out of the minimum requirements of 400 points for occupying the academic position "ASSOCIATE PROFESSOR", the candidate submitted a total of 1041 points!

Scientific achievements and contributions

The scientific contributions of Ch. Assistant Professor Radoslava Emilova Grozdanova are in two major directions:

- I. Contributions to the study of iron homeostasis in normal and various pathological conditions
 - 1. Method introduction and investigation of hepcidin in diseases with impaired iron homeostasis, including beta- thalassemia
 - 2. Validation of ELISA methods for determination of erythroferon
 - 3. A study of haptoglobin polymorphisms on iron metabolism
 - 4. Investigating the relationship between hepcidin and ferroportin in chronic disease.
- II. Contributions to the field of infectious immunology:
 - 1. Study of the immune response against SARS-COV-2 in previously ill and vaccinated persons study of specific antibodies, cytokines, cell subpopulations, analysis of the effect of vaccines.
 - 2. Investigation of the immune response against *Mycobacterium tuberculosis* application of functional cell tests (IGRA, cytokines, eicosanoids.
 - 3. Contributions to the study of HIV infection analysis of the diversity of subtypes and recombinant forms of HIV-1, evaluation of cell subpopulations as biomarkers of immune recovery during treatment, iron homeostasis in HIV infection, co-infections with HEV and HCV viruses.
- III. Contributions to the field of oxidative stress and intercellular signaling
 - 1. Introducing methods of reactive oxygen species, including hydrogen peroxide, and antioxidant enzymes (SOD) in cells.
 - 2. Exploring ROS in HIV infection and aging.
 - 3. A study of selenium in chronic cocaine abuse.
- IV. Contributions to the field of allergology
 - 1. Research on regulatory cells in inhaled allergies and immunotherapy.
 - 2. Determination of allergen-specific IgG 4 and IgE.
 - 3. Study of pro-inflammatory cytokines in patients with dental implants.
- V. Applied contributions in the field of introducing non-invasive and gentle methods in various pathological conditions

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- 1. Development of methods for the determination of cortisol and immunoglobulins in saliva
- 2. Development of a chemiluminescence method for the determination of antimicrobial peptides in feces.
- 3. Development of methods for the determination of anti-CCP and RF in crevicular fluid in patients with rheumatoid arthritis and periodontitis.

In the author's reference, current and diverse scientific topics are presented, grouped in the relevant areas, and in the development of all of them, the candidate applies methodologically modern scientific approaches in an extremely thorough manner. I consider the submitted publications in each of the categories to be significant contributions.

III. Teaching and learning activity

Ch. Assistant Professor Radoslava Emilova Grozdanova for the period 2022-2023 has a horary of 70 hours at the University "Prof. Dr. Asen Zlatarov, Faculty of Biology, holding a full cycle of exercises in "Medical Genetics" with students majoring in "Medicine". In addition, the candidate actively participates in the educational and teaching activities of the Department of "Immunology" of the National Center for Contagious and Parasitic Diseases in the post-graduate training courses, according to the program of the National Center for Contagious and Parasitic Diseases.

CONCLUSION

Based on all of the above, I believe that the admitted participant in the current competition fulfills the criteria for scientific, professional-qualification and educational-teaching activity and possesses in-depth theoretical knowledge and practical skills in the field of immunology. The candidate meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for the Development of the Academic Staff, as well as the Regulations for the Application of the ZRASRB of the National Center for Contagious and Parasitic Diseases. This gives me reason to recommend to the respected members of the scientific jury to vote positively for awarding the academic position "ASSOCIATE PROFESSOR" to Head assistant professor Radoslava Emilova Grozdanova, PhD, in the field of higher education 4. Natural sciences, mathematics and informatics direction 4.3. Biological sciences for the needs of the "Immunology" Department of the National Center for Disease Control and Prevention.

12.10.2023

Member of the scientific jury (opinion):

Varna

/ Assoc. Prof. Dr. Trifon Chervenkov/