

REVIEW

by competition for the occupation of the Academic position "Associate Professor" in professional direction 4.3. Biological Sciences, Scientific specialty: "Cell Biology", announced in State Gazette number: 21, dated 15.03.2022, SU, "St. Kliment Ohridski"

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I. Analysis of the candidate's career profile.

The autobiographical reference shows that the scientific career of Dr Georgi Nikolaev Georgiev started in 2005 at IBIR-BAS in the position of "biologist-specialist". After graduating from SU "St. Kliment Ohridski" (2007) master degree of "Cell Biology and Pathology", he holds the academic position of "assistant" in the same scientific institute. After the defense of a dissertation on the topic: "Role of melatonin and growth factors in the paracrine regulation of steroidogenesis and functional characteristics of human reproductive cells" in 2012. Dr. Georgi Georgiev holds the position of "ch. assistant professor" in the department of "Immunoneuroendocrinology", IBIR, BAS. In 2014 Dr. Georgi Georgiev has been appointed to the academic position of "ch. assistant professor" in the department of "Cell Biology and Developmental Biology", SU "St. Kliment Ohridski".

In 2012 after winning the DAAD scholarship Georgi Georgiev specialized in Friedrich Schiller University, Jena, Germany.

II. General description of the submitted materials for the competition.

The submitted materials for the competition are well organized and reflect the requirements of the Law and the Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria. The entire history and production of ch. assistant professor G. Georgiev, both through a curriculum vitae, lists of publications and citations, and through the presented scientific contributions, and a reference-declaration for the fulfillment of minimum national requirements for participation in a competition for "Assoc. Prof.", in field 4. Natural sciences, mathematics and informatics, Professional direction 4.3. Biological Sciences.

III. Evaluation of the scientific production of the candidate for the overall academic development.

The scientific production of Ch. Assistant Professor Georgi Nikolaev Georgiev includes 25 publications (of which 1 is a book chapter), of which 19 publications are in international journals with an impact factor (7 publications are of Q1 rank, 9 are of Q2 rank, 3 are of Q3 rank). The scientific output is very good and has been successfully reflected in the scientific

community through citations (33 citations from 8 literary sources) and through its presentation in prestigious scientific forums.

For participation in the competition, 1 abstract of a dissertation work and 17 scientific articles were submitted, with 5 of the publications included in section "B" of the national minimum requirements for holding an academic position, and the remaining 12 - in section "G". The total impact factor of the publications exceeds 44. Of them in editions with Q1 – 6 issues, Q2 – 8 issues, Q3 – 2 issues and one chapter of an e-book in English.

Ch. Assistant Professor G. Georgiev is also successful in the field of project financing, having participated in a total of 8 projects.

Ch. Assistant Professor Georgi Georgiev is a long-time teacher in the Faculty of Biology of the SU and he is a supervisor of 6 successfully defended students.

The developments of ch. assistant professor Georgi Georgiev are in 3 major thematic areas, and in each area there are several directions in which Dr. Georgiev has contributions:

1. Immunoendocrine and paracrine interactions in the regulation of steroidogenesis, cell cycle and differentiation
2. Mechanisms of action of antitumor and anti-inflammatory agents with therapeutic application
3. Mechanisms of regulation of cell rest and proliferation

Studies have been conducted involving immunoendocrine, paracrine interactions, and receptor-mediated effects of the hormone melatonin and its influence in the regulation of germ cell steroidogenesis, the cell cycle, and differentiation. The fundamental importance of melatonin in the processes regulating the development of follicles, as well as the importance of its steroid-inhibiting action in the male reproductive system, has been established.

Of scientific and applied importance are the studies carried out in cell models (lung carcinoma; three-dimensional cell cultures), including the influence of antitumor and anti-inflammatory agents (quercetin, resveratrol, dimethylsphingosine and miltefosine) in order to clarify the mechanisms of their action and the possibility of therapeutic application in practice.

The research carried out is of a fundamental-applied nature, including the study of the mechanisms for regulating the state of cell rest in human fibroblast cultures, with the aim of improving health and quality of life, and a potential opportunity for the development of new approaches for targeted cancer therapy cells.

Last but not least in importance are the developments in therapies for wound healing in diabetes. The studies included an *in vitro* model system under normoglycemic and hyperglycemic conditions and it was demonstrated that high glucose concentrations slow down the healing processes of experimentally injured three-dimensional fibroblast cultures.

IV. General assessment of the applicant's compliance with the mandatory conditions and the mandatory quantitative criteria and scientometric indicators.

According to the procedure, scientometric data are presented in accordance with the Law and the Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria, by area 4. Natural sciences, mathematics and informatics, Professional direction 4.3. Biological Sciences, in sub-categories as follows:

1. According to group of indicators "A" - 1. Successfully defended dissertation for PhD degree - presented Abstract **(50 points out of the required 50 points)**
2. According to group of indicators "B" - Habilitation work or scientific publications - 5 publications are presented, of which with rank Q1 – 2 pcs.; Q2 – 2 pcs.; Q3 – 1 pc.; **(105 points out of required 100 points)**
3. According to group of indicators "D" - Scientific publication that are referenced and indexed in world-famous databases - 11 publications and 1 chapter in a book, of which with rank Q1 - 4 pcs.; Q2 – 6 pcs.; Q3 – 1 pc.; **(250 points out of required 200 points)**
4. By group of indicators "D" - Citations in scientific publications, monographs, collective volumes and patents, referenced and indexed in world-famous databases with scientific information - 8 cited articles with 15 citations **(61 points out of required 50 points)**

The required criteria points have been exceeded.

V. Conclusion

The present candidacy fully meets the mandatory conditions and scientometric criteria for occupying the academic position "Associate Professor".

For the competition ch. assistant professor Georgi Georgiev participated with 17 publications (with an impact factor over 44) and an abstract. Of the publications presented: with Q1 there are 6 issues, with Q2 there are 8 issues, with Q3 there are 2 issues and one chapter of an e-book in English.

The scientific works of Dr. Georgi Nikolaev Georgiev are of professional value and good citation. In the studies of Ch. assistant professor G. Georgiev has original scientific and applied contributions that have received international recognition. He is a participant in 8 projects and he is a supervisor of 6 graduates.

In conclusion, I strongly vote "YES" and recommend to the Scientific Jury of this competition the awarding of the academic position of "Associate Professor" to Dr. Georgi Nikolaev Georgiev, considering that he possesses professional qualities that make him suitable for a researcher with independent development, a good teacher and future supervisor of doctoral students.

Sofia city,
07/05/2022

Reviewer: *Krassimira Olegova Todorova-Hayrabedyan*