

POSITION

from

Prof. DSc Ivan Atanassov

AgroBioInstitute, Sofia, 8 Dragan Tzankov blvd

on the materials presented by

Ch. Assistant Professor Georgi Nikolaev Bonchev, Ph.D

for participation in a competition for the academic position of 'associate professor' at the Institute of Plant Physiology and Genetics - BAS, Sofia, in the field of higher education: 4. "Natural Sciences, Mathematics and Informatics"; professional direction: 4.3. "Biological Sciences"; scientific specialty "Genetics" at the "Genome dynamics and stability" laboratory. The competition was announced in the State Gazette, no. 24 of 17.03.2023 and on the website of the Institute of Plant Physiology and Genetics - BAS..

1. General presentation of the procedure and the applicant

By order No. RD-01-35 dated 11.05.2023 of the Director of the Institute of Plant Physiology and Genetics - BAS /IFRG-BAS/ I have been appointed as a member of the scientific jury of a competition for the academic position of 'docent' by area of higher education: 4. "Natural Sciences, Mathematics and Informatics"; professional direction: 4.3. "Biological Sciences"; scientific specialty "Genetics" for the needs of the laboratory "Genome Dynamics and Stability" at IFRG-BAS.

Only one candidate participated in the announced competition for "associate professor": Ch. Assistant Professor Georgi Nikolaev Bonchev, Ph.D. from IFRG - BAS.

The presented by Ch. Assistant Professor Georgi Bonchev, PhD, a set of materials and documents for participation in the competition fully complies with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for the Implementation of the ZRASRB and the relevant Regulations on the Terms and Procedures for Acquiring Scientific Degrees and for occupying academic positions at BAS and the Rules for the terms and conditions for acquiring educational and scientific degrees and for occupying academic positions at IFRG – BAS.

Ch. Assistant Professor Georgi Bonchev, PhD, was born in 1971. During the period 1990-1993, he was a student in the Department of Plant Genetics at the Faculty of Soil Biology of the State University, St. Petersburg, Russia. In 1995, he received the Master's degree in biology with the specialty "Biotechnological processes and devices, specialization: Gene and cell engineering" from the Faculty of Biology, SU "St. Kliment Ohridski", after defending his thesis "*Nuclear and cytoplasmic interactions in hybrids of N. tabacum and three wild species of tobacco and manifestation of cytoplasmic male sterility*". In 2011, he defended his dissertation on the topic "*Molecular-genetic characterization of sphaerococcum-type mutant forms in T. aestivum and Triticale using transposons*" and obtained the scientific and educational degree "doctor" in the scientific specialty "Genetics" at IFRG - BAS. During the period 1999-2002 ch. assistant professor Dr. Bonchev works as a specialist biologist at IFRG - BAS, where he has been successively assistant since 2002 and chief assistant since 2015. Since 2017 ch. associate Professor Bonchev is the head of the "Genome Dynamics and Stability" section at IFRG - BAS.

He knows foreign languages, incl. excellent command of English and Russian and use of French. Ch. assistant professor Dr. Bonchev participated in a number of specializations in leading European scientific organizations, where he specialized in the application of new experimental methods and approaches in various fields of genetics, including: scholarship holder under the Marie-Curie program at the University of Sussex, Brighton, Great Britain in 2005 -2006, post-doctorate in the Sciex program at the Laboratory of Evolutionary Botany, University of Neuchatel, Neuchatel, Switzerland in 2012-2013, scholarship holder under the programs of the Slovak Government and Ministry of Education and Science at the Comenius University, Bratislava, Slovakia in 2014, 2017, 2018 and 2019. Ch. Associate Professor Bonchev has in-depth knowledge and extensive experimental experience in the field of molecular genetics, including the application of a large set of molecular markers and DNA barcoding in a wide range of studies including taxonomic studies, analysis and assessment of population structure and the biodiversity of natural populations, plant genetic resources, etc. He has excellent computer skills, including the use of programs in the field of statistics and bioinformatics, which he successfully applies in a wide range of research.

2. General characteristics of the applicant's activities and achievements

Research activities and achievements

The materials presented by Ch. assistant professor Georgi Bonchev, PhD for the announced competition for "associate professor" include a total of 16 scientific publications in scientific journals with IF and/or SJR, with a total IF of 55.55. It should be noted that Ch. Dr. Bonchev is the first author or corresponding author of 11 of these publications. The high level of the candidate's scientific publications is also supported by their citations in other researchers' publications, a total of 66 citations to 13 of the candidate's publications. Examining the previous scientific and research activity of ch. Dr. Bonchev should be highly appreciated for his participation in 5 national and 3 international projects, with Dr. Bonchev being the head of 2 of these national projects. The indicators for the presented scientific works, citations and participation in scientific and educational projects exceed the requirements and are fully sufficient for occupying the academic position of "associate professor" according to the criteria specified in the PRAS of the BAS and the specific requirements of the IFRG-BAS.

The main results of the research activity and the scientific contributions of ch. assistant professor Dr. Bonchev under the current competition are in two main directions including: /1/ Development of DNA markers for genotyping and assessment of natural and mutant genetic diversity in plants, including: research on the structural dynamics of mobile genetic elements and development and application of transposon-based molecular markers, as well as the application of DNA barcoding in various taxonomic studies in plants (plant species of the genera *Sideritis*, *Crocus*, *Galanthus*, *Thymus* and *Nepeta*) and phytopathogenic fungi in Solanaceae crops, and /2/ Application of genomic selection in cereals with main focus on mapping and identification of new loci for resistance to powdery mildew (*Blumeria graminis*) in wheat. It should be noted that the research activity of Ch. Associate Professor Dr. Bonchev also have an important application and contribution to the successful and increasingly wide application of molecular markers in the scientific research of IFRG-BAS, as an important contribution in this direction is the activity of Ch. assistant professor Dr. Bonchev for establishing a network of collaborations at the national and international level in the field of DNA barcoding technologies aimed at studying and preserving biodiversity.

The presented overall scientific output and research and applied results indicate that chap. assistant professor Dr. Bonchev is a researcher with broad and in-depth knowledge, rich experimental experience, proven skills, achievements and capacity for successfully conducting complex research in the field of molecular genetics, as well as applying a wide range of experimental molecular genetic methods and approaches.

Applicant's organizational activity

The submitted materials for the competition show that together with the scientific research activity ch. assistant Dr. Bonchev also has an intensive organizational activity for the establishment of scientific contacts and a network of collaborations at the national and international level in connection with the wide and systematic application of DNA barcoding, including the attraction of young scientists, the exchange of experience and the creation of an application environment of this technology at IFRG-BAS and in other scientific organizations in the country. The latter significantly contributes to increasing the recognition and capacity of IFRG-BAS as a partner in project initiatives at the national and international level in the field of plant molecular genetics and taxonomy. An example of this is the activities under the BULCode project and the establishment of IFRG as a representative unit for Bulgaria in the International Barcode of Life Consortium (iBOL and BIOSCAN - the European unit of iBOL) - an organization focused on the systematic application of DNA barcoding and metabarcoding and including over 45 member countries . In 2022, IFRG-BAS became a partner of The specified facts from the organizational activity of Ch. assistant professor Dr. Bonchev show that he systematically works actively to raise the prestige of IFRG - BAS, which is mandatory and of high importance for the occupation of the academic position of 'associate professor' under the current competition.

3. Critical comments and recommendations

I have know ch. assistant Dr. Georgi Bonchev for more than 20 years and I have direct positive impressions from certain parts of his scientific research activity during this period indicating that he is a researcher with broad scientific knowledge in the field of molecular genetics, always looking for new scientific challenges, application of new experimental methods and opportunities for the realization of new studies, research and applied projects, which is the basis for his successful current and subsequent academic career and development. I have no critical remarks on the presented candidacy of ch. assistant Professor Georgi Bonchev, Ph.D, for taking up the academic position of 'associate professor' at the Institute of Plant Physiology and Genetics - BAS..

Conclusion:

After reviewing and analyzing the materials submitted to me in the competition, I consider that:

/1/ I'm convince the candidacy of Ch. Assistant Professor Georgi Nikolaev Bonchev, Ph.D., fully meets the requirements of ZRASRB and the requirements specified in the rules of the BAS and IFRG-BAS;

/2/ I give an excellent assessment of the overall research and organizational activities of Ch. Assistant Professor Dr. Georgi Bonchev;

/3/ I believe that the research profile and organizational experience of Ch. Assistant Professor Georgi Nikolaev Bonchev fit in perfectly and will significantly contribute to increasing the quality and efficiency of the overall research and applied activities at the Institute of Plant Physiology and Genetics - BAS.

In connection with the above, I strongly recommend to the Scientific Jury, ch. assistant professor Dr. Georgi Nikolaev Bonchev, to be elected "associate professor", in the field of higher education: 4. "Natural Sciences, Mathematics and Informatics"; professional direction: 4.3. "Biological Sciences"; scientific specialty "Genetics" at the laboratory "Genome Dynamics and Stability" of the Institute of Plant Physiology and Genetics - BAS.

06.07. 2023
Sofia

.....
Prof. DSc Ivan Atanassov