

## OPINION

by Assoc. Prof. Husein Yemendzhiev, PhD

Regarding the application to competition for the academic position of Associate Professor in *Cell Biology*, Scientific Area 4. Natural Sciences, *Mathematics and Informatics*, Professional Field 4.3 *Biological Sciences* at the Burgas "Prof. Dr. Asen Zlatarov" University

This opinion and evaluation refers to the application of Dr. Veselina Merhar who is the only candidate to the announced position. Currently, she is assistant professor in the Department of "Biology, Genetics and Microbiology" at the Faculty of Medicine of the Burgas "Prof. Dr. Asen Zlatarov" University. The materials and information submitted by the candidate are in full compliance with the requirements of national and local regulations and criteria.

Veselina Merhar is a biologist with qualification in molecular and functional biology. She obtained PhD degree in Biology from the Institute of Plant Physiology of the Russian Academy of Sciences in 1993. The candidate's professional path is marked by research and teaching experience at the Institute of Plant Physiology of Bulgarian Academy of Sciences, Bloemfontein and KwaZulu-Natal Universities in the Republic of South Africa, and also in the scientific equipment production industry, namely companies specialized in the development of technologies and tools for microscopy.

Dr. Veselina Merhar's track record of scientific, teaching and general professional activity demonstrates significant expertise in the fields of conventional, confocal, and electron microscopy techniques including knowledge for the specific hardware and software platforms for image analysis. This includes: observations of nano- and micro-scale cell structures, living cell dynamics imaging, quantitative imaging analysis of cell populations and other application of microscopy in cell biology.

Since 2019, Dr. Veselina Merhar has been part of the Burgas "Prof. Asen Zlatarov" University - initially as a lecturer at the Medical College, and later at the Faculty of Medicine. In this sense, she actively participated in the initial building of the methodological fundamentals and capacity of the newly created Medical Faculty to

train students in the specific fields of cell biology, histology and microanatomy, which I believe should be counted as a contribution.

In order to address the requirements for the announced position, Veselin Merhar has submitted 12 publications in high ranking scientific journals, 2 book chapters, one monograph and 20 reports at different scientific forums. The research work presented is mainly focused on characterization of the plant cell response to stress and pathogens. However, it should be noted that the methods of biochemistry, molecular biology and cell visualization applied are universal for all biological objects including microorganisms and animal cells. This experience at a later stage was transferred to the field of modern experimental medicine and method for characterization of human placenta from patients infected with HIV in a state of preeclampsia was developed. The approach combines immunohistochemical and immunocytochemical analysis with state of the art microscopic techniques. All these results have their scientific contribution and in this sense more than 60 citations of the publications of Veselina Merhar have been registered.

Along with the scientific activity, Dr. Merhar demonstrate also experience in all other aspects of the university teaching including supervision of students, organizing scientific events and creating and improving the teaching programme.

In conclusion, after a detailed review of the documents submitted, I believe that the candidate Dr. Veselina Merhar meets the formal and informal criteria for the academic position of "associate professor" in *Cell Biology*, Scientific Area 4. *Natural Sciences, Mathematics and Informatics*, Professional Field 4.3 *Biological Sciences* at the Burgas "Prof. Dr. Asen Zlatarov" University.

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