



REVIEW

for the competition for appointment of the academic position of “associate professor”

In the field of higher education: 6. Agricultural sciences and veterinary medicine; professional field: 6.3 Animal science; scientific specialty “Horse breeding and other equine sciences”, announced in the State Gazette, issue No. 41 of 5th of May 2026, the applicant in the competition is Chief Assistant Professor Maya Georgieva Popova, PhD, of the Department of Animal Sciences, Agricultural University – Plovdiv

Reviewer: Associate Professor Radka Vasileva Vlaeva, PhD, Faculty of Agriculture, Trakia University – Stara Zagora, field of higher education: 6. Agricultural sciences and veterinary medicine; professional field: 6.3 Animal science; scientific specialty Special branches (horses), appointed as a member of the Scientific Jury by Order No. RD-16-811/29.06.2026 of the Rector of the Agricultural University – Plovdiv.

1. General information on the candidate’s career and thematic research development;

The candidate in the competition Dr. Maya Georgieva Popova, was born in 1985 in Shumen, Bulgaria. She graduated from the Agricultural University – Plovdiv in 2008, with bachelor degree in Zooengineering. In 2010, she obtains a Master Degree in “Equestrian sport” in Trakia University – Stara Zagora. For two years she worked as a zooengineer - breeding and selection in department of “Horse breeding” at the state stud farm “Kabiyuk”, after which she worked for three years as a junior expert - control and coordination in Horse breeding at the Executive Agency for Selection and Reproduction in Animal Breeding. From 2014 to 2022, she was a member of the Management board of the “Eastbulgarian horse” Association, and since 2022 she was appointed as a President of the same breeding organization, which is an evidence for her active involvement and professionalism in the field of horse breeding. In 2013, she was appointed as an Assistant professor in Agricultural University – Plovdiv. In 2017, she successfully defended her PhD dissertation entitled: „Condition, dynamics and development trends of breeding and reproductive status of horses from Purebred Arabian and Shagya breeds”. Since November of the same year, she has been appointed to the academic position of Chief Assistant professor in the Department of “Animal Sciences” of the Agricultural University – Plovdiv, which she currently holds.

The professional and academic development of Dr. Maya Popova has been consistent and entirely focused on the field of horse breeding. Her substantial practical experience, combined with her teaching and research activities, provides a solid foundation for her future academic advancement.

2. General description of the materials submitted for evaluation.

In the competition for the academic position of “associate professor”, Dr. Maya Georgieva Popova, has submitted a total of 25 scientific works, grouped as follows:

❖ *Scientific publications in the relevant academic field – 25, including:*

- *Publications related to the doctoral dissertation – 3 items, which are not subject to evaluation;*

- *Publications in journals with an impact factor – 7 items;*

- *Publications in peer-reviewed and refereed scientific journals – 15 items.*

No conference proceeding publications, textbooks or students teaching manuals have been submitted for the competition. The candidate has also provided a list of **4 publications** outside the relevant academic field, **13 university courses**, participation in **5 international** congresses, and in **13** scientific forums in Bulgaria.

The personal contribution of Dr. Maya Georgieva Popova to the **22** publications under consideration is demonstrated by the fact that **3** of them are single-authored, in **13** publications she is first author, in **4** publications is second author and in the remaining **2** publications she is third author.

For the preparation of this review, 22 publications are subject to analysis.

In compliance with minimum national requirements set in the **Law on the development of the academic staff in the Republic of Bulgaria** and the **Appendix to Article 1 of the Regulations for the implementation of the Law on the development of the academic staff in the Republic of Bulgaria**, the candidate have submitted the following:

- for Indicator „A“ – out of required 50 points, **50 points** have been submitted;
- for Indicator „B“ – out of required 100 points, **180 points** have been submitted;
- for Indicator „G“ – out of required 200 points, **207,5 points** have been submitted;
- for Indicator „D“ – out of required 50 points, **60 points** have been submitted.

These data clearly demonstrates that Dr. Maya Georgieva Popova, exceeds the minimum national requirements by submitting **497,5** points across all indicators for the academic position of “associate professor”, compared to required 400 points.

3. Main research directions in the candidate's scholarly work. Demonstrated skills or potential for leading scientific research (project leadership, attracted external funding, etc.)

The scientific research works presented as part of the habilitation work comprise a total of 22 publications, all of which are entirely within the field of equine science. Of these, 7 publications have been published in journals with an impact factor, and 12 have appeared in peer-reviewed journals indexed in internationally recognized scientific databases. The scientific works submitted by Dr. Maya Georgieva Popova are in the following research areas:

1. Selection, genealogical structure, and performance traits;
2. Exterior (morphological) characteristics;

3. Physiological indicators, including hematological and biochemical parameters, and reproductive characteristics;
4. Behaviour and prospective directions for the development and utilization of horses of the Karakachan and Danubian breeds.

A substantial part of the scientific output is focused on the first research area, which includes the scientific publications numbered B1, B2, B5, G2, G4, G9, and G12 in the submitted list of publications following the defense of the doctoral dissertation. Some of the presented works provide detailed analyses of the family and line structure of the Danubian horse breed (B2 and G9), as well as the development of genealogical lines from other sport horse breeds and the Thoroughbred breed within the Eastbulgarian horse breed (B5 and G4). The studies presented in three of the scientific works (B1, G2, and G12) are related to the influence of various sources of variability on free-jumping ability and movement characteristics at the walk, trot, and gallop, as well as on correctness of movement on hard surface. The research focuses on young 2- and 3-year-old Eastbulgarian horses. As a result of these studies, offspring of mares from the Ohota, Likuyushta, and Longuza families, as well as descendants originating from the internationally recognized lines of Devis Own, Ramzes, Alme Z, and Ladykiller, were identified as possessing very good jumping qualities. With regard to movement qualities at the walk, trot, and gallop, the horses from the Liniya, Slavyanka, Ohota, and Malta families, as well as the offspring of mares originating from the Tihany, Devis Own, Ramzes, and Tempelhuter lines, demonstrated the highest genetic potential. Of particular interest are the results indicating a trend towards a marked improvement in movement evaluations with increasing age, particularly in the trot and gallop, between 2- and 3-year-old horses.

The second research area includes studies related to the investigation of exterior characteristics of horses from the Karakachan and Eastbulgarian breeds. It comprises publications B3, B4, B10, and G1. Through the analysis of body measurements, body indices, and the influence of genetic and environmental factors on exterior traits, patterns in the growth and development of the studied populations have been established. Of particular scientific interest is the comparative study of the body development of two autochthonous breeds, the Polish konik and the Karakachan horse (G8). This research provides valuable insights into the morphological characteristics of both breeds, which may contribute to and support future breeding and selection programs.

The studies in the third research area are focused on the assessment of the physiological status of horses, including hematological, biochemical, and reproductive indicators. The subjects of the investigations are horses from the Purebred Arabian, Eastbulgarian, Karakachan, and Haflinger breeds. The results obtained demonstrate the importance of certain genetic and environmental factors (breed, age, and season) for variations in blood parameters (B7, B9). Of practical value is the study of the effect of a mineral-vitamin supplement on reproductive status and blood parameters in mares of the Purebred Arabian and Eastbulgarian breeds (B8). The data related to the reproductive activity of mares from two different breeds reared in Bulgaria (G3, G5, and G7) are also of practical significance.

In the fourth research area, the studies are focused on behavioral characteristics, conservation, and the sustainable utilization of local horse breeds, in particular the Karakachan and Danubian breeds (B6, G6, G10, and G11). The scientific works address the historical development, breeding policies, and prospects for the utilization of local horse breeds.

The scientific activity of Dr. Maya Popova is concentrated in the field of equine science and encompasses a broad range of issues related to the selection, reproduction, physiology, and behavior of horses. Her work is characterized by consistency and a clear research focus, as well as by sound methodological preparation and the ability to plan and conduct scientific research. This is further evidenced by Dr. Maya Popova's participation as a project leader in two scientific projects related to the study of horse behavior under free-range conditions and the relationships between exterior characteristics and performance ability. She has also participated in two additional scientific projects, one of which was on a national level. Furthermore, the candidate's active involvement in programs of the "National science" Fund and the "Young scientists and postdoctoral researchers" program during the period 2017 – 2021 is particularly noteworthy.

4. Assessment of the candidate's pedagogical training and teaching activity. Her role in the education and training of young researchers.

The materials submitted for the competition demonstrate that Dr. Maya Popova has been actively engaged in direct teaching activities, including lectures, practical classes, and substantial extracurricular academic activities. The candidate's teaching experience exceeds 13 years. She conducts classes for Bachelor's degree students in the following courses: Biological basis of equine science; Equine production technology; Equine science; Ethology; and Equestrian tourism, recreational and therapeutic riding for students in the Zooengineering program; Equine science for students in the Zooengineering with Information Technologies program; Horse breeding and equestrian sport for students in the Agronomy (Field Crops) program; and Equestrian tourism, recreational and therapeutic riding and Animal husbandry for students in the Agricultural Tourism program. At the Master's degree level, she teaches four courses within the Master's program "Animal Breeding and Reproduction": Fundamentals of horse breeding; Breeding programs in horse breeding; Management of genetic resources in horse breeding; and Biotechnologies of reproduction in horse breeding.

The teaching activities presented demonstrate the broad scope of expertise possessed by Dr. Maya Popova. Combined with her extensive practical experience, this provides favorable conditions for achieving high quality in student education and for the successful integration of current scientific achievements into the teaching process.

5. Significance of the achieved research results, as evidenced by citations, publications in high-prestige journals, awards, and membership in international and national scientific organizations, etc.

The list of identified citations submitted by the candidate contains 4 citations of 4 scientific publications. All citations are in scientific journals indexed in the international Scopus database,

with SJR indicators and classified in different quartile categories – Q4, Q2, Q1, and Q3. Three of the journals are international, while one is Bulgarian. This demonstrates that the results obtained by Dr. Maya Popova have been recognized and have served as a source of information and a basis for further scientific research. Regarding the candidate's publication activity in prestigious journals, a list of the impact factor/ranking of the articles has been provided. Seven of the scientific publications have been published in four scientific journals indexed in Scopus and classified in the Q2 – Q4 quartile categories. Two of the journals are Bulgarian and two are international.

6. Significance of the contributions to science and practice. A reasoned assessment of the extent to which the candidate has a clearly defined research profile.

The value of the contributions resulting from the scientific works of Dr. Maya Popova lies in providing data of significant importance for the improvement of selection activities, the updating of breeding programs, and the conservation of national genetic resources in horse breeding. With regard to the effective management of pasture systems and biodiversity conservation, new modern technologies for monitoring free-ranging horses have been implemented. Overall, the presented studies contribute both to scientific advancement and to addressing current practical challenges in horse breeding.

I. ORIGINAL RESEARCH CONTRIBUTIONS

The genealogical structure of the populations of the Danubian and Eastbulgarian horse breeds has been established. The formation and development of new genealogical lines and groups within the Eastbulgarian breed have been traced, based on the use of stallions from other sport horse breeds (B2, B5, G4, and G9). The patterns of growth and development of the recent Eastbulgarian horse population have been established, and the influence of line and family affiliation on exterior traits has been assessed (B10). A number of selection-relevant traits in horse breeding have been studied, including movement qualities and free-jumping ability, thereby expanding the knowledge of the performance characteristics of horses, particularly those of the Eastbulgarian breed (B1, G2, and G12). New data have been presented on the influence of breed, age, and season on physiological parameters of horses from different breeds, as well as on the behavior of Karakachan horses under free-ranging conditions.

II. METHODOLOGICAL CONTRIBUTIONS

Modern methods for monitoring and studying free-ranging horses through GPS technologies, camera traps, and drones have been introduced (G10).

III. SCIENTIFIC CONTRIBUTIONS

The scientific contributions are expressed in the enrichment of knowledge regarding the morphological characteristics of the modern populations of the Karakachan and Eastbulgarian horses through the determination of their exterior characteristics and body indices (B3, B4, G1, and G8). Knowledge of the reproductive characteristics of mares from different breeds has also been expanded through the investigation of key reproductive indicators, including oestrus,

reproductive cycle, and gestation length, as well as certain hematological and biochemical parameters (B8, G3, G5, and G7).

IV. APPLIED CONTRIBUTIONS

The detailed study of the genealogical structure, morphological characteristics, and performance traits of three Bulgarian horse breeds (Danubian, Eastbulgarian, and Karakachan) provides a sound scientific basis for the **improvement of breeding programs**. Practical guidelines have been developed for the **utilization of horses**, particularly those of the Karakachan breed, as a tool for the sustainable management of pasture ecosystems and the conservation of biodiversity. The data on the reproductive characteristics of mares from the studied breeds may provide **practical guidance for the organization and implementation of breeding campaigns**. This information could be valuable for horse breeding farms, breeding associations in the equine sector, and governmental institutions.

7. Critical remarks and recommendations.

Regarding the materials submitted for the competition, I have no critical remarks. I would like to make a recommendation to Dr. Maya Popova, which I hope will have a positive and motivating effect on the candidate. I recommend that, in her future academic activities, she develop a textbook or teaching manual for one of the courses she teaches. I believe that her extensive practical experience, combined with her long-standing teaching experience, provides a solid foundation for the development of a contemporary educational resource.

8. Personal impressions and opinion of the reviewer.

I have known Chief Assistant Dr. Maya Popova personally for more than 15 years. During this period, I have been familiar with her professional and research activities. I have had the opportunity to observe her work both from a distance and through closer professional collaboration. My impressions are that she is a highly motivated and responsible person who possesses excellent professional expertise and demonstrates consistency in fulfilling her assigned tasks. She is effective in her work both independently and as part of a team. She is a positive and communicative individual, and exceptionally professional and reliable in her working relationships.

In my personal opinion, Dr. Maya Popova brings to her work not only knowledge and professionalism, but also "heart", perseverance, and genuine commitment to the future development of horse breeding in Bulgaria.

CONCLUSION

Based on the analysis of the candidate's teaching, scientific, and applied research activities, I consider that Chief Assistant Professor Maya Georgieva Popova, PhD, **meets the requirements** of the "Law on the development of the academic staff in the Republic of Bulgaria", the Regulations for its implementation, and the Regulations of the Agricultural University for their application.

The scientific output presented by Dr. Maya Popova is of high value; the contributions are original and practically applicable, and the results have gained recognition through publications in prestigious international journals and corresponding citations. The candidate not only meets but also exceeds the national minimum requirements for holding the academic position of "associate professor".

All of the above provides me with grounds to give an overall **POSITIVE** evaluation of her entire academic and professional activity.

I would like to recommend to the respected Scientific Jury to also cast a positive vote and to the Faculty Council of the Faculty of Agronomy at the Agricultural University – Plovdiv to elect **Chief Assistant Professor Maya Georgieva Popova, PhD**, to the academic position of **"Associate Professor"** in the scientific specialty **"Horse breeding and other equine sciences"**.

Date: 13.08.2026

Plovdiv

REVIEWER:

(Assoc. Prof. Radka Vlaeva)