



OPINION

on the materials for participation in a competition for the academic position “Professor”, field of higher education 6. Agricultural Sciences and Veterinary Medicine, professional direction 6.4. Veterinary Medicine, scientific specialty "Epizootology, infectious diseases and prevention of infectious animal diseases" by discipline “Pathology (Pathophysiology)”, which was announced by the University of Forestry-Sofia in State Gazette, issue 18 of the 1st March 2024, procedure code VM-P-0224-122.

Competing candidates: Associate professor Dr Krasimira Ivanova Genova, PhD

Opinion author: Professor Dr Darinka Nedelcheva Ilieva, PhD at the National Diagnostic Research Veterinary Medical Institute, Sofia, professional direction 6.4. Veterinary Medicine, scientific specialty "Epizootology, infectious diseases and prevention of infectious animal diseases", member of the Scientific jury with Order № ZPS-197/15.04.2024 of the Rector of the University of Forestry, Sofia, Bulgaria.

1. **Brief biographical data of the candidate.**

Krasimira Ivanova Genova graduated from the Moscow Veterinary Academy “K.I. Skryabin” in 1987 with a specialty in veterinary medicine. In 1994 she acquired from the Higher Attestation Commission the scientific degree "Candidate of Sciences" (PhD). From 1987 to 1999 she was a “scientist” III – I degree at the RPVMII, Sofia for the production of viral and bacterial biopreparations. In 2000-2001 she was head at the “Department for production and control of vaccines and serums and she deals with registration and preparation of dossiers of viral biopreparations. Since 2001 she has been “Chief assistant” at the Department "Anatomy, Physiology and Animal Science", FVM, UF. In 2006 after a concourse, she was elected to the academic position "Associate professor" who currently occupies in the same department and became a head in the compulsory disciplines " Pathophysiology " and "Immunology". During the period 2008-2020 Assoc. prof. Dr. Krasimira Genova, PhD is a “Deputy Dean” at the FVM. From 03.2020 until now she is Dean. Its main responsibilities as Dean are related to the organization and control of the overall activity of the FVM and its teaching work. She is fluent in Russian and English, works with modern computer programs, which is essential for successful and teaching, research and expert activities.

2. **Conformity of the submitted documents and materials of the candidate with the requirements of the Rules for development of academic staff at the University of Forestry;**

Assoc. prof. Dr. Krasimira Genova, PhD participated in the competition for "Professor" with a full set of documents (24) issues, which was established during their review at the first meeting of the scientific jury on 08.05.2024. The documents are arranged and described very precisely and clearly. On paper are presented 3 copies of documents and materials and 4 identical copies in electronic version (USB flash drive). They are prepared according to the requirements of Rules for the Development of Academic Staff at the University of Forestry-Sofia, higher education 6. Agricultural Sciences and Veterinary Medicine, professional direction 6.4. Veterinary Medicine, as follows;

Indicator A; Dissertation for awarding the PhD - 50 points;

Indicator B; Monograph -100 points;

Indicator Г; The number of points on this indicator is 417.31, which twice exceeds the required 200 points. They are obtained from articles and reports published in scientific journals, referenced

and indexed in world databases with scientific information - 317.18 points and from articles and reports published in non-refereed journals with scientific review - 103.3 points;

Indicator D; According to this indicator, the number of points is 580, which is 5.8 times more than the required 100 points; from citations or reviews in scientific publications, referenced and indexed in world databases of scientific information or in monographs and collective volumes - 525 points; from citations in monographs and collective volumes with scientific review - 50 points and from citations or reviews in non-refereed journals with scientific review - 5 points;

Indicator E; The formed 305 points three times exceed the required 100 points, according to this indicator; from the management of successfully defended PhD students - 80 points; participation as a member of a team in a national scientific or educational project no 9 - 135 points and by the management of a national scientific or educational project no 3 - 90 points.

The candidate in the competition for "Professor" Krasimira Genova has formed by groups of indicators A+B+Г+Д+E a total of 1452.31 points or 2.6 times more than the minimum required 550 points, which proves the scientific activity of the candidate.

3. Assessment of the teaching activity of the applicant.

Krasimira Genova is a lecturer at the Department "Anatomy, Physiology and Animal Sciences", FVM, UF-Sofia with scientific experience as an „Associate professor“ over 22 years, lead lecturer of the compulsory disciplines "Pathology (Pathophysiology)", "Immunology", "Molecular Biology", "Biochemistry" and the elective discipline "Working with laboratory animals. Organization of the experiment and animal welfare". From the presented information for the auditorial employment for a 5-year period from 2018 to 2023 in the above mentioned disciplines Krasimira Genova has presented in Bulgarian a total of 1417 hours of lectures and 94 hours of exercises with extra auditorial employment a total of 347 hours. For the same period of time 2018-2023 auditorial employment of the candidate from the English course is a total of 1386 hours of lectures and 588 hours of exercises and an extra auditorial employment of 221 hours. She is the author of four curricula and 1 curriculum in co-authorship with colleagues from Trakia University-Stara Zagora, all developed in Bulgarian and English.

Associate prof. Dr Genova, PhD is the supervisor of three doctoral students; two of them in independent form of training, successfully defended in 2015 and 2017 and PhD student in with public defense in June 2024.

The reference presented by the candidate for "Professor" shows, that she has delivered 8 hours of lectures in English in 2015; 2018 and 2024 at 3 foreign universities in front of students, PhD students and teachers, as follows; Veterinary Faculty of the University of Sassari, Italy; VF of the University of Zagreb, Croatia and UniLaSalle, Rouen, FVM, France;

Associate prof. Genova as Dean of the Faculty of Veterinary Medicine has participated in various committees and working groups; on the academic activity and the quality of training of veterinary students; attestation of the academic activity of the lecturers from the FVM; examination of documents for recognition period of study; selection of Erasmus+ documents; passing exams for doctoral students in the capacity of chairman, member and examiner, for organizing and conducting state exams, participation in committees to the Faculty Council, Academic Council, etc.; according to the quality of training system, she has completed course for auditor (ISO 9001:2008 and ISO 19011:2011) and she is a member of the Council for Quality Management at the UF. In order to improve her qualification, she has passed a specialized English language course for acquiring professional terminology and "Certificate of foreign language specialization", NBU.

Associate prof. Genova has completed short-term specializations abroad at the University of Agronomic Sciences and Veterinary Medicine, Bucharest, Romania and the University of Córdoba, FVM, Spain with lectures in the field of "Pathophysiology" in 2023.

For continuing training of veterinary specialists in 2009 Assoc.prof. Genova led the course "Training and qualification of teachers in the field of veterinary medicine". She is a member of the Methodological Council of the Center for continuing education and author of the curriculum of the course "Protection and welfare of experimental animals used for educational or scientific purposes". Leading lecturer for training of students in group specialization in "Veterinary dermatology of small and exotic animals". Head and participant in the composition of examination committees for training of individual postgraduate students in "Epizootology, infectious diseases and prevention of infectious animal diseases". Associate Professor Genova participates in the creation of a training laboratory equipped to serve science and practice with quality and competitive research.

I highly appreciate the teaching activity of Associate professor Dr. Krasimira Genova as a holder in the compulsory disciplines of the curriculum in the specialty "Veterinary Medicine" with a workload for "Professor", as evidenced by the reports presented by the dean's office; the management of PhD students; its participation in committees and working groups in relation to the academic activity and the quality of training of veterinary students, the conduct of training courses for veterinary specialists, as well as the great and public engagement as Dean, Faculty Veterinary Medicine, University of Forestry-Sofia.

4. Evaluation of the scientific, scientific-applied and publishing activity of the candidate.

The candidate in the competition for "Professor" presents a full list of scientific works **63 issues**, of which **25** are published in Bulgarian and **38** in English, as follows; **1** monograph, ISBN: 978-619-7703-61-0, pp.136, 2024, Intel Entrans, Sofia; **35** scientific articles - 13 published in foreign articles of them 6- impact factor (IF=0,661) indicated for 1 publication; Impact rank sum (SJR=0.874) obtained from 5 journals and 7 published in foreign journals referenced outside Web of Science and Scopus; **22** scientific articles - 14 published in Bulgarian journals, referenced in the world database Web of Science and Scopus and 8 published in Bulgarian journals, referenced outside Web of Science and Scopus; **28** reports printed in full text in national and international scientific forums and 1 textbook on „Pathophysiology“, submitted to reviewers, /in print/, which is not included in the materials of the competition, but after its publication will be used as a university textbook by students of veterinary medicine. The candidate presents 3 independent scientific papers; lead author of 13 issues; 11 with two co-authors and 36 with three or more co-authors, a large number of scientific works published in refereed and non-refereed editions indexed in the global database Web of Science and Scopus. There are 15 abstracts and 10 certificates from participation in scientific forums, which show the great scientific activity of the candidate. The scientific works are after the first habilitation and are outside the submitted for obtaining of educational and scientific degree "Doctor of Philosophy", which fully meet the Minimum national requirements for occupying the academic position of "Professor", according to the Rules for the Development of Academic Staff at the University of Forestry-Sofia, Bulgaria.

4.1 Participation in the scientific, scientific-applied and educational projects.

Associate prof. Genova has submitted a report of participation in **29** projects, as follows; **25** scientific projects, leader of 5 projects and member of the team in 20; 4 educational projects; 13 financed from UF-Sofia; 1 funded by MES and 4 funded by programs of the EU.

4.2 Characteristics of the published results.

The achieved scientific results from the publication activity of Associate prof. Genova enrich and expand the knowledge of significant and problematic for veterinary science and practice disease. The scientific results are published in journals referenced and illustrated in the database; *Scopus (Macedonian Veterinary Review; Bulgarian Journal of Veterinary*

Medicine; World rabbit science; Trakia Journal of Sciences) and Web of Science (Tradition and modernity in Veterinary medicine; in well-known journals with scientific review; Experimental Pathology and Parasitology; Journal Laser Health Academy; Veterinary Medicine; International J. of Current Microbiology Applied Sci.; Genetics and Husbandry.

4.3 Reflection of the candidate scientific activity in the literature (citations)

Associate prof. Genova has 28 scientific articles published in English and Bulgarian of which she has received 61 citations, including 16 citations from dissertations and they must be excluded from the Minimum National Requirements before they are submitted to NACID. This significant number of citations proves that the scientific works of the candidate are up to date. Of the presented reference, the most cited are the articles „*Influence of infectious bursal disease virus strains on the avian immune system*“- 8 times; „*Humoral immune response to different routes of myxomatosis vaccine application*“- 7 times; *Growth and development of skeletal muscle in connection with the expression of the myostatin gene (mstn)* - 6 times.

4.4 Contributions in the work of the candidate (scientific, scientific-applied and applied)

Object of the research activity of Assoc. prof. Genova are the pathogenetic mechanisms of reactivity, resistance and factors that affect the immune and cellular response to the effects of various chemical or biological substances, as well as problematic for the country infectious diseases. The scientific works submitted by the candidate in the competition for "Professor" are based on modern approaches and methods of research, which allows objective assessment and reliability of the results obtained, from which a large number of contributions arise; 11 original scientific contributions from publications; (26); (28); (5; 18; 20); (21); (36; 52); (48); (9; 11; 14; 15; 62); (1; 25); (38; 50; 51; 61); (37); (44; 45; 46; 47); 3 scientific-applied contributions - (18); (3; 12; 55); (30; 31); 5 applied contributions - (6; 42; 43); (2; 17; 19); (41); (7; 32; 56; 57); (34).

The scientific contributions are grouped by the candidate into thematic direction, as follows; *Substitutes for nutritive antibiotics in animal husbandry (44; 45; 46; 47; 3; 12; 55; 48); Organic and inorganic zinc, iron and lead compounds (11; 15; 9; 14; 62; 41; 27); Role of mycotoxins in immune reactivity (7; 56; 57; 32); Influence of sex, breed, season and age on the immune status of birds and animals (1; 25; 34); Atopy in dogs (30; 31); Cell-transmissible tumor of chicken-hepatoma induced by the myelocytomatous strain MS-29 (16; 53); Carcinogenic influence of various toxic substances (40; 22); Genetic markers (61; 50; 51; 38); Problems in dental medicine (37; 54; 58; 59; 60).* I would like to note, that I accept with a positive assessment all the contributions made as a result of the scientific activity of the candidate. From the above-mentioned directions are derived contributions in the field of immunology, pathophysiology, biochemistry and dermatological diseases in small animals, which to a large extent build Associate Professor Krasimira Genova, as a leading specialist in these areas of veterinary science. She has a defended doctoral dissertation and PhD degree in "Epizootology, infectious diseases and prevention of infectious animal diseases". I highly appreciate the contribution to the writing and publication of the monograph "Respiratory disease complex in cattle" in the scientific specialty in which she participates as a "Professor", as well as the contributions derived from publications of problematic infectious diseases diagnosed in our country, as follows;

In the direction "*Infectious pathology in ruminants*";

- In the monographic of the candidate are presented the epidemiology, clinic and prophylaxis of BRDC (Respiratory disease complex in cattle), a multifactorial and polyetiological problem observed in calves and young cattle, requiring attention and coordination at world level due to the large economic losses to cattle breeding. The risk factors and some major etiological pathogens widespread in Europe, that provoke BRDC are analyzed. The mechanisms of development and interaction between etiological agents-Bovine respiratory

syncytial virus-BRSV are discussed; Bovine parainfluenza virus-3-BPIV-3; the pathogen *Mannheimia haemolytica*, etc., as well as the prevention and control of BRDC (64).

- The interferon-inducing activity of a bulgarian BRSV vaccine strain has been established and the absence of the characteristic human RSV allergic reaction to reinjection of animals has been demonstrated (26).

- A stronger T-cell immune response has been demonstrated in lambs applied tracheally with a BRSV vaccine strain compared to subcutaneous vaccination (28).

In the direction "*Infectious pathology in pigs*"

- The effectiveness of vaccination against enzootic pneumonia in pigs in industrial pig farms has been evaluated and antibody dynamics in different technological periods have been monitored (2; 17; 19).

- The extent and severity of pathomorphological lesions in the lungs of pigs naturally infected with *Mycoplasma hyopneumoniae* were analysed. Pulmonary lesions were shown to be of moderate severity in 52% of cases, and in 30% the organ was severely affected (4).

- Bacterial pathogens have been identified and their significance in the Respiratory disease complex in pigs has been determined. Effective and adequate control measures have been identified (6; 42; 43).

In the direction "*Infectious pathology in rabbits*"

- An analysis of the need for vaccination was made and the dynamics of the serological response was followed after a different route of administration of live attenuated vaccine against myxomatosis in the rabbit. An application mode was applied depending on the breed (5; 18; 20).

- The harmlessness of an attenuated vaccine viral strain of myxomatosis has been demonstrated by investigation its impact on rabbit spermatogenesis (21).

- Macroscopic and pathohistological changes on the skin and in internal organs after experimentally induced infection with a field isolate of the rabbit myxomatosis virus were followed (8).

In the direction "*Application of methods for diagnosis of viral diseases*"

- Specific and sensitive tests have been developed for the express diagnosis of the viral diseases - parvovirus in dogs and rabbit haemorrhagic disease (36; 52).

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5. Assesment of the candidate personal contribution

I am convinced of the candidate's personal contribution to the "Professor" to the scientific, educational and teaching, expert and public activity, evidence is attached;

Participation in scientific juries in universities and scientific organizations;

2 participations to obtain the „Doctor of Sciences” degree, Trakia University;

11 participations to obtain „PhD“, Trakia University, of them 8 participations in UF; 2 participations-BAS and 1 participation Trakia University; 12 participations for the occupation of the academic position "Professor", "Associate Professor " and "Chief Assistant"; in 8 scientific juries Assoc.prof. Genova was chairman-FVM, UF-Sofia.

Participation in the management of scientific forums;

2008-2014 and 2016 Assoc.prof. Krasimira Genova is a member of the organizing committee of the scientific conference with international participation "Traditions and Modernity in Veterinary Medicine" and a participant in the Editorial Board of the conference Proceedings; 2018-2024 she is a member of the organizing committee, chairman of the program committee of the scientific forum held in the country.

Participation in the III National student scientific conference "Management and Sustainable use of biological resources", Yundola, 2011.

Participation in scientific conference "Young researchers and the contemporary scientific challenges", 2014.

Participation in the preparation of reviews of the scientific projects (SP);

SP-№1.04/17 Trakia University; SP-№ 12/2015 Trakia University; SP-№109/2008 UF-Sofia.

Participation in Editorial boards of the scientific journals;

Scientific journal of the FVM, UF, Sofia, editor;

Int. Journal of Zoology and Animal Biology; Veterinary Practice and Veterinary Assembly.

Participation in the preparation of reviews of scientific articles, textbooks, etc.

International Journal of Zoology and Animal Biology, ISSN:2639-216X;

Tradition and Modernity in Veterinary Medicine, ISSN; 2534-9333 e-ISSN 2534-9341;

Animal of Sciences ISSN: 0514-7441 (Print); ISSN 2534-9856 (On-line);

Bulgarian J.of Agricultural Science ISSN 1310-0351 (Print); ISSN 2534-983X (On-line);

Proceedings of the Bulg.Academy of Sciences, ISSN: 1310–1331 (Print), 2367–5535 (Online)

Review of a Chemistry textbook for students of veterinary medicine.

Membership in scientific and professional organizationsc.

Member of the Union of Scientists in Bulgaria; Member of the Expert Committee-BFSA for recognition of the professional qualification "Veterinarian"; Member of the Bulgarian Veterinary Union; Member of the European Biosafety Association; Sigma Xi;

Participation in Accreditation procedures in FVM, UF-Sofia;

Deputy chairman of the Committee for the preparation of a self-assessment reports for science degree "Doctor", as follows; "Epizootology, infectious diseases and prevention of infectious animal diseases"; "Physiology of animals"; "Surgery, radiology and physiotherapy"; "Morphology"; "Parasitology and invasion diseases of animals and man";

6. Notes and recommendations.

The monograph is published in Bulgarian to gain more popularity I recommend the author to add a summary in English.

CONCLUSION:

The candidate in the competition fully meets the criteria for awarding the academic position "Professor", according to the Law on the Development of Academic Staff of the Republic of Bulgaria, Regulations for its implementation and Internal Rules for Development of the Academic Staff of the University of Forestry, Sofia.

I give my high positive assesment on the basis of the evidence of the educational and teaching activity, defended monograph in the specialty of the present competition, as well as the publication activity of the candidate with contributions, that are of proven fundamental and scientifically applied nature, recognized in the country and abroad through citations, IF and SJR of the journals. I propose to the honourable of the Scientific juri to vote decision academic position "Professor" to be occupied by Assoc. Prof. Dr. Krasimira Genova, PhD, field of higher education 6. Agricultural Sciences and Veterinary Medicine, professional direction 6.4. Veterinary Medicine, Scientific specialty "Epizootology, infectious diseases and prevention of infectious animal diseases".

22 May 2024
Sofia

Opinion prepared by: 
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