

## OPINION

on the materials for participation in a competition for the academic position of "professor," field of higher education 6. Agricultural Sciences and Veterinary Medicine, PN 6.4. Veterinary Medicine, scientific specialty "**Epizootiology, Infectious Diseases and Prevention of Infectious Diseases in Animals,**" in the discipline "**Pathology (Pathological Physiology),**" announced by the University of Forestry in State Gazette issue 18/1.3.2024, procedure code VM-P-0224-122.

**Applicant for participation in the competition:** Assoc. Prof. Krasimira Ivanova Genova, DVM, PhD

**Prepared by:** *Prof. Dr. Simeon Georgiev Yordanov, DVM, PhD* - professional field "Veterinary Medicine," scientific specialty "Epizootiology, Infectious Diseases and Prevention of Infectious Diseases in Animals" in the disciplines Epizootiology and Infectious Diseases of Domestic and Wild Animals.

### **1. Brief biographical data for the candidate.**

Assoc. Prof. Dr. Krasimira Ivanova Genova was born on September 13, 1964, in Sofia. She graduated as a veterinarian from the Moscow Veterinary Academy "K.I. Skryabin" in 1987. She holds a scientific degree of "Doctor" from the Scientific Council of Veterinary Medicine with code 04.03.12. "Epizootiology, Infectious Diseases and Prevention of Infectious Diseases in Animals" obtained in 1994. She won a competition and worked as a research worker III-I degree and head of a laboratory at Veterinary Institute of Immunology- Sofia, where she participated in the development and control of new bioproducts. Since May 1999, Genova has been a biotechnologist and senior researcher. She participates in the production of vaccines, sera, and diagnostics against viral infections in domestic animals and prepares dossiers for the registration of bioproducts. She actively participates in the preparation of students and scientific conferences. Since 2000, she has been a researcher at the Department of Viral Bioproducts and is responsible for the production and control of viral bioproducts. Since November 1, 2001, Dr. Genova has been an Ch. Assist. in the Faculty of Veterinary Medicine at the University of Forestry, Sofia. She conducts practical exercises and seminar classes in the disciplines of "Immunology" and "Pathological Physiology" and participates in several scientific research projects. Since March 2006, she has been habilitated as an "associate professor" and lectures on the same disciplines and actively participates in the scientific research activities of the faculty. In the period 2008-2011, Assoc. Prof. Genova was the vice-dean for education at the Faculty of Veterinary Medicine and taught "Immunology"

and "Pathological Physiology" in Bulgarian and English. At the same time, she organized a Scientific Conference on "Traditions and Modernity in Veterinary Medicine." In the following years, she expanded her activities to include "Work with Laboratory Animals and Organization of Experiments" as well as "Molecular Biology" in Bulgarian and English. From 2018 to 2020, Assoc. Prof. Genova was again the vice-dean for education and besides teaching, she coordinated the work of the faculty in the System for Quality Assessment of Education. From March 5, 2020, Assoc. Prof. Genova has been the Dean and is responsible for the overall activities of the Faculty of Veterinary Medicine, which is a high assessment of her overall activity up to this moment for the third time. She has completed two short-term specializations abroad. Besides the above, she is fluent in English, Russian, and French. She has computer literacy and demonstrated communication, organizational, and managerial skills. She works successfully as a researcher and lecturer for students, specialists, and doctoral students. She has rich theoretical and practical experience in the field of infectious pathology and immunoprophylaxis of animals. She has participated in the editorial boards of 4 specialized scientific journals. Assoc. Prof. Genova's biography is rich with her participation in numerous university and national forums, councils, committees, and organizations, including the Bulgarian Veterinary Union and the Union of Scientists in Bulgaria, confirming her great professional and civic responsibility.

## **2. Conformity of the submitted documents and materials of the candidate with the requirements according to the Regulations at University of Forestry**

The documents submitted by the candidate, Assoc. Prof. Krasimira Genova, fully comply with the requirements according to the Regulations for Academic Staff Recruitment and Selection (RAS), 2013, Section IV. Conditions and Procedure for the Appointment to the Academic Position of "Professor" and the regulations for RAS at the University of Forestry.

## **3. Evaluation of the candidate's teaching activity.**

Assoc. Prof. Dr. Krasimira Genova has a total of 23 years of teaching experience, including 6 years as a Head assistant and 17 years as an associate professor. During this time, in the conditions of the newly established Faculty of Veterinary Medicine, she has conducted exercises and seminars, delivered lectures on the disciplines of "Immunology" and "Pathological Physiology," and later on "Work with Laboratory Animals and Organization of Experiments" and "Molecular Biology," in both Bulgarian and English. She has taught students, specialists, and doctoral students. She has developed 5 educational programs, 2 reviews, and 12 opinions on scientific works and habilitations according to the RAS. She has

supervised two successful doctoral students. She has the necessary workload to participate in the competition for the position of "professor", as evidenced by Service Note No. 3325/2024 from the Department of "Anatomy, Physiology, and Animal Science." She has participated multiple times in scientific juries, been a member and chair of Organizing Committees of various Scientific Conferences, and, not least, served two terms as deputy dean for academic affairs and one term as dean of the Faculty of Veterinary Medicine, which attests to her excellence as a university lecturer.

#### **4. Evaluation of the candidate's scientific, scientific-applied, and publication activity.**

##### ***4.1. Participation in scientific, scientific-applied, and educational projects.***

Assoc. Prof. Krasimira Genova has participated in 9 national scientific and educational projects, leading 3 of them. She has also been a co-executor on another 20 scientific projects and tasks. All of these have been successfully completed and concluded with significant contributions and publications.

##### ***4.2. Characteristics of the published scientific results.***

Assoc. Prof. Genova has presented a list of 65 published articles and reports, including a monograph on the topic "*Respiratory Disease Complex in Cattle*," published by Intel-Entrance Publishers, Sofia, 2024, 136 pages, ISBN 978-619-7703-61-0. From the presented list, in Group G-7 "Articles and Reports Published in Scientific Journals Indexed in World-renowned Databases with Scientific Information" - 34 articles with 317.18 points, 6 articles with an Impact Factor totaling 1.535, 22 articles published in the annual collections of the Scientific Conference "Traditions and Modernity in Veterinary Medicine," and 12 articles in other collections and journals, as follows: - Animal Science - 2 articles; Mac. Vet. Rev. - 2 articles; Trakia J. of Science - 1 article; Bul. J. of Agricultural Science - 1 article; Bul. J. of Vet. Med. - 2 articles; World Rabbit Science - 1 article; Eight Junior Conf. of Lighting - 3 articles. In Group G-8 "Articles and Reports Published in Non-Refereed Journals, with Scientific Reviewing or Published in Edited Collective Volumes," 31 articles are listed, totaling 100.13 points. Of these, 14 articles were published in various journals, and 17 articles in collections from Scientific Conferences, symposiums, and congresses, with 16 of them in English and 15 in Bulgarian. According to the place of publication, the articles are divided as follows: A. In scientific journals - 35 articles, including: a/ with an impact factor - 6 articles; b/ in foreign refereed journals, outside Web of Science and Scopus - 7 articles; c/ in Bulgarian journals indexed in Web of Science and Scopus - 14 articles; d/ in Bulgarian refereed journals outside Web of Science and Scopus - 8 articles. B. In collections from scientific forums - 30

articles, including 18 publications in national and 12 in international forums. From the provided references, it is evident that Genova has participated in 20 national and international scientific forums, covering various topics, where she presented independently and in collaboration a total of 46 reports addressing a wide range of issues, including studies on myxomatosis virus, cytotoxic and proliferative activity of lymphocytes in rabbits, immune reactions in broiler chickens, natural resistance in broilers, the effects of zinc products in animal feed, the influence of organic acids in broiler feed, the effects of certain natural products and probiotics, vaccinations against EP in pigs, anesthesia schemes in cats, as well as on prevention and therapy in dentistry in humans, a *significant portion of which found its place as publications in the scientific literature mentioned above.*

#### ***4.3. Reflection of the candidate's scientific activity in the literature (citation impact)***

In the provided reference under point D13, "*Citations or reviews in scientific publications, referenced and indexed in world-renowned databases with scientific information or in monographs and collective volumes,*" the candidate presents 35 publications, each with 15 points, totaling 525 points. However, there is some discrepancy with the citation list. *Considering the latest list, in which 28 publications are indicated as cited, with a total of 61 citations,* assigned to D13 with a rating of 15 points, it seems more current. An analysis of the citations reveals that among them are 17 citations in doctoral dissertations, which are not referenced and indexed in world-renowned databases as monographs, therefore they should be discounted ( $17 \times 15 = 255$  points). One self-citation is noted (Dimitrova et al., 2019, Int. Cong. Prague, Czechia), one incomprehensible citation in Arabic, one citation without clear reference to the publication, and one repeated citation ( $4 \times 15 = 60$  points). After discounting the irrelevant citations, there remain 40 citations with 600 points according to D13. Under D14, 5 citations are registered ( $5 \times 10 = 50$  points), and under D15, one citation with 5 points. *Under these circumstances, it is reasonable to assume that the total impact in this section under letter D is close to 655 points, which is evidently an excellent assessment of the candidate's publication activity.*

#### ***4.4. Contributions in the candidate's works (scientific, scientific-applied, applied).***

The subjects of the candidate's research have been the pathogenetic mechanisms of reactivity and resistance in animals and birds, factors influencing the immune response, and cellular response to various chemical or biological substances. As a result of her extensive and wide-ranging scientific research activity, Dr. Genova summarizes the obtained results and identifies three groups of contributions.

***A. Scientific contributions with an original character – 11 items.***

Among the most significant are: - The establishment of interferon-inducing activity of a Bulgarian vaccine strain of BRSV and the absence of allergic reaction upon re-injection of animals has been demonstrated. - The safety of an attenuated vaccine strain of myxoma virus has been proven, and the dynamics of the serological response after various methods of application of live attenuated vaccine against myxomatosis in rabbits has been traced. - Specific and sensitive tests for express diagnostics of viral diseases in animals have been developed. - For the first time, the dose-dependent effect of a Bulgarian experimental zinc methionate on some hematological parameters, natural and cell-mediated immunity factors in rats, pigs, and birds has been studied. - Immune parameters in pigs of different breeds have been analyzed, and systemic immune reactions depending on the breed have been proven. - Polymorphism of the ABCG2 gene related to milk production has been identified, and the frequency of occurrence of gene alleles responsible for myostatin protein synthesis in thin-fleece sheep breeds has been determined. - The effect of herbal plants on the productive indicators and meat quality in lambs and broiler chickens has been investigated.

***B. Scientific contributions with a confirming character – 5 items.***

Bacterial pathogens have been identified, and their significance in respiratory bacterial complex in pigs has been determined, followed by effective therapeutic measures and adequate control measures. - The effectiveness of vaccination against EP in pigs in industrial pig farms has been evaluated, and the dynamics of antibodies during different technological periods has been traced. - The effects of various doses of organic and inorganic iron on nonspecific reactivity in birds have been assessed. - Fumonisin-induced immunotoxicity in broiler chickens and in mononuclear cells of different origins has been demonstrated. - The role of sex, age, and season on the absolute and relative number of lymphocytes in pheasants has been established through immuno-cytoadherent technique.

***C. Scientific-Applied Contributions - 3 items.***

The spread of myxomatosis in rabbits has been analyzed, and the need for vaccination has been substantiated.

The modulatory role of probiotics on the immune system has been established, and their role in improving the health and productivity of animals (mammals and birds) has been confirmed. Positive effects of various therapies for atopic conditions in dogs have been established.

*These contributions reflect a significant portion of the results of the candidate's scientific research and publishing activities and are evaluated as a serious contribution to the development of veterinary medical science in our country.*

#### **5. Evaluation of the candidate's personal contribution.**

According to the distribution of participation, Dr. Genova's publications are presented as follows: a/ sole author - 3 items; b/ with 1 co-author - 13 items; c/ with 2 co-authors - 11 items; d/ with 3 or more co-authors - 36 items. Expressed as percentages, her sole participation and participation with 1 or 2 co-authors represent 43% of all publications, which I consider a good ratio, considering the wide range of her scientific research activity, often with an interdisciplinary nature. *On the other hand, the fact that Dr. Genova's share as the first or second author of all presented publications is 56% is eloquent evidence of the candidate's personal contribution.*

#### **6. Critical notes and recommendations:**

I do not consider the publication labeled as No. 65 - "Textbook on Pathophysiology," authored by Genova and Filchev, for evaluation, as it has not been published, therefore not peer-reviewed or indexed.

There is a slight discrepancy in the number of publications included in the overall list (65) and in the classification of publications (63).

I accept the provided report, which includes a total of 19 contributions, comprising "original" - 11 items, "confirmatory" - 5 items, and "scientific-applied" - 3 items, with the following remarks: 1. The second part of original contribution No. 3, "A method for applying live attenuated vaccine against myxomatosis in rabbits depending on the breed," I consider as "scientific-applied contribution." 2. I consider original contributions No. 5 and No. 10 as "scientific-applied contributions." 3. Scientific-applied contribution No. 2 has the character of a "confirmatory contribution." Given this situation, the ratio changes to 9:6:4.

#### **7. Personal Impressions:**


I have known Assoc. Prof. Krasimira Genova since her appointment as chief assistant at the Faculty of Veterinary Medicine at LTU. Due to the proximity of the disciplines we taught and my work as deputy dean, I have had the opportunity to acquaint myself with her capacity as both a researcher and educator. She possesses very good theoretical and practical preparation, rich teaching, organizational, and managerial experience. She is highly respected by students and the academic community. She demonstrates significant professional and civic activity.

She has international experience and authority. She is an extremely valuable asset to the Faculty of Veterinary Medicine at the University of Forestry -Sofia.

**8. Conclusion:**

Candidate Assoc. Prof. Dr. Krasimira Ivanova Genova, DVM, has submitted the necessary documentary evidence, from which it is evident that she meets the requirements according to the regulations for academic staff advancement in the University of Forestry, and the evaluations of her scientific, scientific-applied, and publishing activities exceed national requirements for the award of the academic title and position of "Professor." Based on this and my personal assessments of the various aspects of her past scientific research, teaching, and publishing activities, I wholeheartedly recommend that Candidate Assoc. Prof. Dr. Krasimira Ivanova Genova, DVM, PhD be appointed to the academic position of "Professor" in Professional Field 6.4. Veterinary Medicine, Scientific Specialty "Epizootiology, Infectious Diseases, and Prevention of Infectious Diseases in Animals" in the discipline "Pathology (Pathophysiology) " at the Department of Anatomy, Physiology, and Animal Sciences at the University of Forestry, Sofia.

May, 22, 2024  
Sofia

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