

## EXPERT OPINION

**REGARDING:** Announced competition for the occupation of the academic position “Associate Professor” in the specialty “Medical Genetics,” professional field 7.1 Medicine, field of higher education 7. Healthcare and Sports – one position, 0.5 full-time equivalent for the Department of Medical Genetics, Faculty of Medicine, and one full-time position for the Laboratory of Medical Genetics at the University Hospital “St. Marina” EAD – Varna, published in the State Gazette, issue No. 6 of 16.01.2026.

**REVIEWER:** Assoc. Prof. Dr. Mariya Kostadinova Levkova, PhD; specialty/scientific degree – Associate Professor of Genetics, Department of Medical Genetics, Medical University “Prof. Dr. Paraskev Stoyanov” Varna; address and contact: 1 Hristo Smirnenski Blvd., University Hospital “St. Marina,” email address: mariya.levkova@mu-varna.bg, office phone: 052 978 649. Internal member of the Scientific Jury, appointed by Order No. R-109-130/16.03.2026 of the Rector of MU–Varna, designated to prepare an expert opinion in accordance with Protocol No. 1/26.03.2026 from a meeting of the Scientific Jury.

**CANDIDATE:** Chief Assistant Dr. Mari Ara Hachmeriyan-Andreeva, PhD, MD – sole candidate.

**The candidate’s documents have been prepared in accordance with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB) and the Regulations for its implementation, as well as the Regulations for the Development of Academic Staff (RDAS) of the Medical University – Varna, which announced the competition.**

### *Brief biographical data and professional qualifications of the candidate:*

Dr. Mari Hachmeriyan holds a Master’s degree in Medicine (2011), has a PhD degree in “Genetics,” obtained in 2017 after defending a dissertation on the topic “Maternal biochemical screening as a method for prenatal genetic prevention,” and in 2025 obtained a PhD degree in “Medical Genetics” after defending a dissertation on the topic “Genetic counseling in patients with suspected tumor-predisposition syndrome.”

From 2012 to the present, Dr. Hachmeriyan has successively passed through all stages of academic development as Assistant and Chief Assistant in the Department of Medical Genetics. In 2018, she acquired the specialty “Medical Genetics.” Since 2019, she has been appointed as physician head of the Laboratory of Medical Genetics at University Hospital “St. Marina” – Varna. Her professional interests are in the field of oncogenetics and bioinformatic analyses.

### *Evaluation of scientometric indicators of the candidate:*

Dr. Hachmeriyan participates in the competition with a total of 32 scientific works. Of these, 31 are presented as material for fulfilling the minimum requirements for holding the academic position of “Associate Professor,” according to the LDASRB. One scientific publication in an indexed scientific journal is also presented, which is beyond the minimum scientometric requirements for holding the academic position of “Associate Professor.”

The scientific works of Dr. Mari Hachmeriyan-Andreeva, presented in the current competition to meet the minimum scientometric requirements for holding the academic position of “Associate Professor,” include:

**A1:** Dissertation for awarding the educational and scientific degree “Doctor” – 1 item, **50 points**

**B4:** Scientific publications in journals that are referenced and indexed in world-renowned databases with scientific information and are actually published in full: 10 items, **101.74 points**

**G6:** Published book based on a defended dissertation for awarding the educational and scientific degree “Doctor” or for awarding the scientific degree “Doctor of Sciences” – 1 item, **40 points**

**G7:** Publications and reports published in scientific journals, referenced and indexed in world-renowned databases with scientific information – 14 items, **136.95 points**

**G8:** Publications and reports published in non-referenced journals with scientific peer review or published in edited collective volumes – 6 items, **24.31 points**

Dr. Hachmeriyan has provided information related to indicator **D10** for a total of **7 citations** with a weight of **105 points**, which meet the minimum requirements for holding the academic position of “Associate Professor,” according to the LDASRB and RDAS of MU–Varna.

Of all publications submitted for participation in the competition, **16** are **full-text**, with the candidate being **first author** in **5 of them**. Of all publications submitted for participation in the competition, **14** are published as **abstracts**, with the candidate being **first author** in **6 of them**.

***Research activity and contributions of the candidate’s scientific works:***

Dr. Hachmeriyan participates in four national research projects under the Science Fund of MU–Varna, as well as in one scientific group LiquidBio of project No. BG-RRP-2.004-0009-C02 “Medical University – Varna: Enhancement of translational achievements in medicine (MUVE-TEAM), funded by the European Union – NextGenerationEU, through the National Recovery and Resilience Plan of the Republic of Bulgaria.

The scientific publications presented by Dr. Hachmeriyan under indicators B4, G7, and G8 in her academic report cover the following main thematic areas in the field of medical genetics:

1. Oncogenetics and hereditary tumor-predisposition syndromes – the dissertation [A1] and related publications [B4.1, B4.3, G6, G8.15].
2. Prenatal diagnostics and genomic technologies (NIPT) – related publications [B4.1, B4.3, B4.10, G8.11, G8.20, G8.27].
3. Cytogenetics and molecular diagnostics in oncohematology – related publications [B4.7, B4.8, G8.26].
4. Clinical dysmorphology and rare genetic diseases – related publications [G8.6, G8.10, G8.25, G8.30, G8.31].
5. Ethical aspects, telegenetics, and education – related publications [B4.12, B4.14, B4.22, G8.8].

*The main contributions of Dr. Hachmeriyan's scientific works* are as follows, and they can be divided into four groups:

*1. Original scientific contributions:*

- Development of recommendations for improving genetic counseling in patients for identifying increased risk of neoplasms – in the dissertation [A1] and related publications [B4.1, B4.3].

*2. Scientific, applied and scientific-applied contributions:*

- Evaluation of the diagnostic success of applied methods for targeted panel testing using NGS technologies – related publications [G6, G8.15].
- Optimization of algorithms for mass prenatal screening – related publications [B4.1, G8.11].
- Summarization of essential information in accessible language in the form of a widely accessible patient guide – in the published book based on a defended dissertation – “The Genetic Code of Cancer” [G6].
- Socio-psychological analysis of the introduction of NIPT in Bulgaria – related publications [B4.10, G8.20].
- Restructuring of invasive diagnostics – related publications [B4.3, G8.27].
- Combined cytogenetic and iFISH approach in oncohematology – related publications [B4.7, G8.26].
- Expanded clinical application of knowledge based on work in the field of oncohematology – related publications [B4.8].
- Assessment of the understanding of genetic information – related publications [B4.12, B4.22].

*3. Clinical contributions:*

- Definition of phenotype–genotype correlations in rare syndromes – related publications [G8.6, G8.10, G8.25, G8.30, G8.31].

*4. Innovative and original contributions:*

- Application of software products for facial recognition in the algorithm of daily practice – no supporting evidence provided.
- Transformation of genetic counseling during COVID-19 – related publications [B4.14, G8.8].

I fully accept the contributions presented by Dr. Hachmeriyan. They are characterized by a complex nature – covering both fundamental research in the field of oncogenetics and the development of practical algorithms in pediatric genetics. These achievements contribute to the establishment of personalized medicine in Bulgarian healthcare and to improving care for patients with rare genetic diseases.

***Teaching activity of the candidate:***

According to the attached report, the average teaching load of Chief Assistant Dr. Mari Hachmeriyan-Andreeva, PhD, MD for the five academic years presented is on average 241.8 hours, which exceeds the required norm of 220 teaching hours. Dr. Hachmeriyan is mainly engaged in teaching Medical Genetics to students in the specialty “Medicine,” in both Bulgarian- and foreign-language programme.

***Clinical-diagnostic activity of the candidate:***

Dr. Hachmeriyan has been Head of the Laboratory of Medical Genetics since 2019 and has a total professional experience of nearly 14 years. She performs consultative and diagnostic activities, including molecular genetic analyses, interpretation of results, and preparation of medical-genetic opinions.

***Personal impressions of the candidate:***

Knowing the overall activity of Dr. Hachmeriyan, as well as her personal qualities – commitment and innovativeness – I highly evaluate her contributions and wish her expansion of her scientific activity through active participation in international teams/reference groups and development of independent scientific work.

**Conclusion**

I consider that the documents and the presented evidentiary material of Chief Assistant Dr. Mari Ara Hachmeriyan-Andreeva, PhD, MD in the competition meet the requirements of the LDASRB and the RDAS of the Medical University – Varna and fully cover the scientometric requirements for holding the academic position of “Associate Professor.” The research, teaching, and clinical-diagnostic activities she demonstrates give me grounds to give a “positive” evaluation of her candidacy and to propose to the Scientific Jury to award the academic position of “Associate Professor” in the scientific specialty “Medical Genetics,” professional field 7.1 Medicine, in the field of higher education 7. Healthcare and Sports, for the needs of the Department of Medical Genetics, Faculty of Medicine, and the Laboratory of Medical Genetics at University Hospital “St. Marina” EAD – Varna to Chief Assistant Dr. Mari Ara Hachmeriyan-Andreeva, PhD, MD.

30.04.2026

Varna

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