REVIEW

by Prof. Dr. Juliana Krumova Marinova, MD, PhD

Department of "Social Medicine, Health Management and Disaster Medicine", Faculty of Medicine at Trakia University - Stara Zagora

Member of the Scientific Jury, appointed by Order No. R-109-441/05.12.2024 of the Vice-Rector for Academic Affairs of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna

Prof. Dr. Albena Kerekovska for Rector according to Order No. R-100-929/04.12.2024

<u>Regarding</u>: competition for academic position of "**Associate Professor**" in the specialty "Public Health Management" (Bulgarian and English-language teaching), professional field **7.4.** Public Health, field of higher education **7.** Healthcare and Sports – one place for the Educational Sector "Medical Ethics and Law", Department of "Social Medicine and Organization of Health Care", Faculty of "Public Health", Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, additional conditions for the competition: candidates must hold a Master's degree and a Doctor's degree in professional field 7.4. Public Health; Master's degree in the specialty "Law" (competition announced in the State Gazette - issue 85/08.10.2024)

Candidate for the competition: Chief Assistant Martin Ognyanov Mirchev, PhD

At the first meeting of the Scientific Jury, held on 19.12.2024 (Protocol No. 1/19.12.2024), I was assigned to present a review. The review was prepared based on an analysis of the documentation submitted by the candidate on a flash drive, described in 21 points in the Application to the Dean, in full compliance with the requirements and criteria of the Act on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations on the Development of the Academic Staff at the Medical University - Varna. The documentation submitted by Chief Assistant Martin Ognyanov Mirchev, PhD under the competition procedure is complete, accurate, neatly arranged and contains all required official certificates, references and evidentiary material.

Candidate's career profile:

Martin Ognyanov Mirchev is a graduate of the National High School of Humanities and Arts "Konstantin Preslavski", Varna. He graduated with a Bachelor's degree in Philosophy and a Master's degree in History of Philosophy - Sofia University "St. Kliment Ohridski", respectively in 2010 and 2011.

He holds a Master's degree in Law - Varna Free University "Chernorizets Hrabar" since 2015 and a Master's degree in Public Health - Medical University "Prof. Dr. Paraskev Stoyanov" - Varna since 2018.

He has been successively a "honorary assistant" (2014/2015), "assistant" (2015 - 2019, "chief assistant" (2019 and up to the present) at the Department of "Social Medicine and Healthcare Organization" at the Faculty of Public Health, Medical University - Varna.

Since 2019, he has held the educational and scientific degree "Doctor" in the doctoral program "Public Health Management" after successfully defending a dissertation on the topic: "Ownership of patient information in the context of "Big Data" in full accordance with his profile as a philosopher, lawyer, teacher and researcher in the field of biomedical ethics.

In the system of Postgraduate studies, the candidate has a recognized specialty in: "Medical Informatics and Health Management" - Medical University "Prof. Dr. Paraskev Stoyanov" since 2024.

Martin Mirchev is author of 20 publications, and has participated in international and national scientific forums with attached lists. He has accumulated ten years of teaching experience, leads training of students in Bulgarian and English from master's and bachelor's programs at MU - Varna, related to disciplines in the field of biomedical ethics.

He is fluent in and uses English in his work.

Summary: The information presented confirms that Martin Mirchev has high qualifications, experience and skills, an expression of purposeful and consistent professional development.

Requirements related to the candidate's scientific research activity:

Chief Asst. Martin Mirchev has submitted all necessary documents related to the requirements of the Development of Academic Staff in the Republic of Bulgaria Law for its implementation and the Regulations for the Development of the Academic Staff at the Medical University - Varna. The academic reference document issued by the Library of the Medical University - Varna confirms that the submitted works in a scientometric aspect exceed the minimum requirements of the Development of Academic Staff in the Republic of Bulgaria Law and Arts and fully comply with the same, as defined in the Regulations for the Development of the Academic Staff at the Medical University - Varna. The scientific works are original and authentic, confirmed by the Certificate of Similarity issued by the Publishing Department of the Medical University - Varna, after a technical check for similarity in the iThenticate system - one of the most authoritative global Internet platforms for this purpose.

1. Quantitative presentation by indicators:

In this competition procedure, the scientific works reflecting the candidate's research activity for the period 2019 - 2024 are evaluated as follows by indicators:

Indicator A. Dissertation for awarding the educational scientific degree "PhD": "Ownership of patient information in the context of "Big Data"", 2019;

Indicator B3. Habilitation work: - independently developed monograph "Ethical challenges to digital health and technologies", 2024;

Indicator G.: *G7. Publications and reports published in scientific journals, referenced and indexed in world-renowned databases of scientific information:* - 4 publications with an impact factor in prestigious publications "J Med Internet Res", "European Journal of Public Health" with a total IF 14.886 (117.5 points by this indicator); *G8. Publications and reports published in non-refereed journals with scientific review or published in edited collective volumes:* - 7 publications (150 points under this indicator). The total number of points under indicator G5-9 is 267.5, with a mandatory minimum of 200 points. One more full-text publication is presented, and it is beyond the minimum scientometric requirements for holding the academic position of "associate professor". Of the 12 full-text publications presented, 6 are in Bulgarian and 6 are in English. Martin Mirchev is an independent author of 4 of the publications; of the 8 publications developed in co-authorship: he is

the first author of 6 of them, which confirms his exceptional personal contribution to their development: 10 publications (84%), of which he is a leading or independent author.

Indicator D: Citations of the candidate's scientific works: The total number of citations is 6, reflected in indicator D10 - citations or reviews in scientific publications, referenced and indexed in world-renowned databases of scientific information with an attached list of citations covering the minimum requirements for holding the title of "associate professor" and the number of points for the candidate - 90.

2. Areas of scientific research and contributions from scientific papers:

Martin Mirchev's scientific research is in the subject area of the competition. In the submitted Summary of contributions to scientific papers, written by the candidate on 7 pages, they are presented in 4 main thematic areas: 1. Ownership of patient information in the context of Big Data (dissertation work – A1; 4 publications – G7.1, G72, G7.3, G8.7). 2. Ethical challenges to digital health and technologies – habilitation work (B3); 3. Medical ethics and ethical principalism – respect for autonomy; principle of justice; empathy and alienation, rule of veracity and trust between doctor and patient; the bioethical prism to the issue of personal patient responsibility for health as a factor for prioritizing in healthcare – 4 publications (G7.4, G8.1, G8.3, G8.5); 4. Social justice in times of crisis: COVID-19 – 3 publications (G8.4, G8.6, G.8.5).

Martin Mirchev presents the contributions sequentially for the four areas as those of a scientific-theoretical and applied-practical nature. I accept the contributions from the scientific works in the way in which the candidate presents them in the competition. In the most synthesized form, I would highlight the following two unifying characteristics in relation to them: innovation and interdisciplinarity in the context of the own scientific research conducted with the application of critical philosophical-ethical, legal, historical analyses in the field of medicine and public healthcare.

Habilitation work: Independently developed monography: "Ethical Challenges in Digital Health and Technologies", 2024. The monograph contains 174 pages, the bibliography includes an impressive number of 346 sources, of which 341 are in Latin and 5 in Cyrillic. The monographic work is structured in five main parts, logically linked and expanding the scope of the author's research efforts. In the introduction to the monographic work, Martin Mirchev substantiates with

skill and deep understanding the relevance of the topic, which is definitely interdisciplinary, requiring in-depth knowledge and mastery of research approaches in different fields of knowledge.

Part one: "The concept of digital health and phases in the development of healthcare. A brief look at the future" is written in three subsections, which examine the concept and definitions of digital health, the phases in the development of healthcare in this context, outlining the trend towards comprehensive digitalization with its consequences as "great promises" but also "tangible risks".

Part two: "Somewhere between the pages of history: innovations, technologies, relationships and interconnections. How does society accept changes and what has the digital (r)evolution changed?" – written in 4 subsections, with a focus on the past with a presentation of historical foundations in the light of scientific and technological innovations and a discussion of how they change human relationships and medical practice; to what extent digitalization today changes in a "different" way compared to changes in the past.

Part three: "Digital world and moral world – how is the digital age changing us?" – written in 4 subsections with the main idea to provoke an understanding of the influence of digital on human nature: can we lose control over it, can it dehumanize human relationships in general and in particular, those in medical practice.

Part four: "Contextual background and trends. Bioethical considerations. Different applications, expectations and concerns related to emerging digital technologies" – written in 13 subsections: examines digital technologies and the complex interrelationships with individuals and society with an emphasis on: the use of data; regulatory frameworks; ideas for future digital development.

Part five: "Digital God" or Deus ex machina? Somewhere between over-expectations and reality in the context of healthcare" with one subsection: "And yet it is people – the driving force of the digital revolution" is a kind of ethical reavaluation of the conflict between over-expectations and reality in the application of technologies.

With this work, Martin Mirchev categorically declares his aspiration for an extremely indepth and comprehensive study of complex, debatable problems of our time. This work is the result of consistent and purposeful research, teaching and practical experience, continuous qualification in the fields of philosophy, history, law, ethics and bioethics, reflected in the presented analyses – philosophical, historical, ethical, raising questions with multidirectional dimensions and possible interpretations.

In summary, the contributions of the monograph can be presented as follows:

1. Of a scientific and theoretical nature:

1.1. An overview of the leading technological trends in digital health in our time is presented and the possible repercussions as benefits and risks for the parties involved in the processes related to the handling of data of different nature: "who, when, why?" and the possible risks and possible abuses;

1.2. A historical analysis of the interrelationships between technological evolution and the acceptance of changes in society, as well as in the specific doctor-patient relationship;

1.3. A philosophical analysis of the influence of digital technologies on people, both in the context of medicine and healthcare, and in the conditions of social relationships. In the light of the philosophical discussion, the question of control over the digital technologies that we create is raised: are we losing it? What are the risks of turning life into a "digitally measurable value"?

1.4. An ethical analysis is made with a specific focus on the risks of technological development with a potential dehumanization of medical practice and the consequences in view of the bioethical principles of respect for autonomy and justice. The ethical analysis raises the issue of responsibility - moral and normative for potentially harmful consequences of digital technologies with the disclosure of the so-called "many hands problem" and the blurring of responsibility in the shared digital world.

1.5. Various successful, unsuccessful and unfulfilled practices in the development of digital technologies are presented in the context of the conflict between great promises, resource investments and real results against the background of still unresolved fundamental problems in healthcare, such as equitable access and existing health inequalities and inequities.

2. Of an applied and practical nature:

2.1. A scoping review is presented regarding the scope of the scientific literature on digital health in light of the keywords ethics and privacy, in which specific thematic categories are defined;

2.2. The results of the study indicate that there are changes in the trends related to academic attention - traditional ethical aspects in digital health are giving way to cutting-edge technologies (artificial intelligence, blockchain) with a pronounced need for appropriate legislation and regulations.

Summary: What has been presented so far is grounds for a high assessment of the candidate's scientific and research activities.

Assessment of the candidate's teaching and learning activities:

Martin Mirchev has ten years of experience as a lecturer in the medical education system. He carries out an annual teaching workload of 405 to 487 hours, reflected in the submitted official Teaching Workload Report for the last 5 academic years. He teaches the discipline "Medical Ethics" (also Medical Ethics and Deontology, Ethics, Ethics in Public Health, Bioethics and Artificial Intelligence) to students from the following specialties of the Medical University - Varna: Medicine (Bulgarian-language program); Medicine (English-language program); Dental Medicine (Bulgarianlanguage program); Dental Medicine (English-language program); Nurse; Midwife; Health Management (Bachelors); Speech Therapy (Bachelors); Management of healthcare (Bachelors); Management of healthcare (Masters); Public Health Protection and Control (Masters); Pharmaceutical Management and Care (Masters); Technology Transfer and Innovation in Pharmacy (Masters); Artificial Intelligence in Biomedicine (Masters); Artificial Intelligence in Healthcare (Masters); Biomedical Engineering and Technologies (Bachelors).

In summary: All this gives me reason to highly evaluate the candidate's teaching and learning activities.

CONCLUSION:

Based on the above, I give a completely positive assessment of the candidacy of Chief Assistant Martin Ognyanov Mirchev, PhD to occupy the academic position of "Associate Professor". Chief Assistant Martin Ognyanov Mirchev, PhD with his accumulated pedagogical experience in teaching students, high qualification and scientific production, covers and exceeds the set qualitative and quantitative requirements for the development of the academic staff, specified in the Regulations for the Development of the Academic Staff of the Medical University - Varna. Chief Assistant Martin Ognyanov Mirchev, PhD fully meets the additional conditions of the competition. I confidently give my positive vote "YES" for his candidacy.

I confidently recommend to the Honorable Scientific Jury to vote **positively for Chief Assistant Martin Ognyanov Mirchev, PhD** to occupy the academic position of "Associate Professor" in the scientific specialty "Public Health Management" (Bulgarian and Englishlanguage teaching), professional field **7.4. Public Health**, Higher Education Area **7. Health and Sports** at the Educational Sector "Medical Ethics and Law", Department of "Social Medicine and Health Care Organization", Faculty of Public Health, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna (competition announced in the State Gazette - issue 85/08.10.2024).

30.01.2025

Reviewer: Заличено на основание чл. 5, §1, б. "В" от Регламент (ЕС) 2016/679

Stara Zagora

Prof. Dr. Juliana Krumova Marinova, MD, PhD