# WRITTEN OPINION

from Assoc. Prof. Valentina Yovcheva Belcheva, PhD – lecturer in the Department of "Pharmaceutical Sciences" at the Medical College, Trakia University-Stara Zagora

<u>Subject</u>: Competition for the occupation of the academic position "associate professor" in the specialty "Pharmacology", professional direction 7.3. Pharmacy, field of higher education 7. Health care and sport at Medical University "Prof. Dr. Paraskev Stoyanov"-Varna, announced in the "State Gazette", No. 83/03.10.2023

Only one candidate took part in the announced competition for the occupation of the academic position of "ASSOCIATE PROFESSOR" - chief assistant professor Maya Petrova Radeva-Ilieva, MScPharm, PhD, from the Department of "Pharmacology, Toxicology and Pharmacotherapy" at the Faculty of Pharmacy, Medical University - Varna, for whose needs it has been announced.

By order No. R-109-513/30.11.2023 of the Rector of MU-Varna, I am included in the composition of the scientific jury, which held its first meeting on 11.12.2023 and decided to prepare an opinion.

The submitted set of materials on electronic carrier is **in full compliance** with the legal requirements and Art. 138 of the current Regulations for the development of the academic staff at MU-Varna (last revision 21.11.2022) as the evidence presented are not repeated with the submitted and evaluated ones when acquiring the educational and scientific degree "doctor" and occupying the academic position "chief assistant professor".

All administrative deadlines for the competition have been met.

## Candidate's career profile

Chief assist. prof. M. Radeva-Ilieva was born in 1989 in the town of Silistra. She received his secondary education at the Natural Sciences and Mathematics High School "St. Kliment Ohridski", Silistra. She graduated with full honors and the "Golden Galen" award from the Faculty of Pharmacy at MU-Varna in 2015 and obtained a master's degree in Pharmacy (diploma No. 003661 dated 02.03.2016).

Since 2016, she has been successively an assistant professor and chief assistant professor in the Faculty of Pharmacy at the Medical University of Varna, where she is currently working in this position.

In 2022, M. Radeva-Ilieva defended a dissertation in the scientific specialty "Pharmacology (incl. pharmacokinetics and chemotherapy)" on the topic "Isolation and analysis of methylxanthine fraction, catechin fraction and total Bancha green tea extract and study of their influence on the pharmacokinetics of sildenafil in rats" and acquired the **educational and scientific degree "Doctor"** (diploma No. 517/20.05.2022).

Increasing her qualification, chief. assist. prof. M. Radeva-Ilieva acquired a specialty in "Pharmacology and Pharmacotherapy" in December 2023. (certificate No. 106-127/10.01.2024).

The above clearly indicates that Maya Petrova Radeva-Ilieva fully meets the requirements of Art. 125 of the current Regulations for the development of the academic staff at MU-Varna for the occupation of the academic position "associate professor":

- she has acquired a master's degree and a doctoral degree in the same specialty (7.3. "Pharmacy") for which the competition is announced;
- she held the academic position "assistant professor" and subsequently "chief assistant professor" at MU-Varna for more than five years;
- she has a recognized specialty in the health care system (such is regulated in Ordinance No. 1 of 22.01.2015 on acquiring a specialty in the health care system) in the same specialty of the competition.

### Teaching and learning activity

Chief assist. prof. Maya Radeva-Ilieva conducts practical exercises and seminars as well as participates in conducting the semester exams in the academic disciplines:

- pharmacology for 3rd year students, specialty "Pharmacy";
- toxicology for 4th year students, specialty "Pharmacy";
- pharmacotherapy for 5th year students, specialty "Pharmacy"

The academic workload of chief assist. prof. M. Radeva-Ilieva is **291** hours, calculated arithmetically for 4 academic years, with a requirement of 100 hours from MU-Varna for admission to the competition for "associate professor". She is a co-author of 3 teaching aids on the subjects she teaches. A monograph in the field of pharmacology has also been published.

Summarizing the educational and teaching activities of Maya Petrova Radeva-Ilieva, I can categorically define her as a well-established and continuously developing teacher who fully meets the requirements of LDASRB, RILDASRB and the Regulations for the Development of the Academic Staff at MU-Varna for occupying the academic position "associate professor":

- she conducts practical exercises and seminars as well as participates in conducting the semester exams;
- > she has an arithmetic average of 291 teaching hours for 4 academic years;
- she is a co-author of 3 teaching aids on the disciplines she teaches.

#### Scientific research activity

Chief assist. prof. M. Radeva-Ilieva presents 20 original articles in scientific journals that are not conected to the dissertation work. Of these, 8 are in refereed and indexed scientific journals in world databases with scientific information - Scopus and Web of Science. Of the presented publications, 6 are in journals with an «impact factor» (JCR). The total "impact factor" of the journals in which the candidate has publications is 14,495. The remaining 12 articles were published in non-refereed peer-reviewed journals.

A search of the available databases reveals the following citations:

- in Scopus -19;
- in Web of Science 16;
- in Google Scholar 48:
- in ResearchGate 29.

Most of the citations are in leading journals, referenced and indexed in world-renowned databases of scientific information.

Chief assist. prof. Maya Radeva-Ilieva has participated in 25 scientific forums and conferences, of which 16 are international and 9 are national.

The candidate is an author of the **monograph** "Health benefits and risks of phytoproducts containing polyphenols", published in 2023 (ISBN 978-619-241-290-6), with two reviewers. The presented habilitation thesis examines the potential therapeutic and adverse effects associated with the intake of polyphenolic compounds, which are included in the composition of a large number of food supplements and medical devices. A current topic related to the patient safety in the use of phytoproducts is touched upon. The applicant's original results are also presented.

Chief assist. prof. Maya Radeva-Ilieva has participated in 2 research projects (financed by the "Science" fund of MU-Varna).

In the last 5 years, the research work of chief assist. prof. M. Radeva-Ilieva is mainly in the field of the scientific specialty "Pharmacology". Her main contributions, reflected in scientific publications, represent a significant contribution to pharmaceutical science and practice and can be summarized as follows:

#### Scientific and theoretical contributions

- ➤ Pharmacokinetics and drug interactions Various aspects related to drug interactions have been studied. Potential interactions between tyrosine kinase inhibitors and other medicines, as well as available data on observed clinically relevant interactions between medicinal products and green tea or epigallocatechin-3-gallate, are explored and systematized. The role of the hospital pharmacist in predicting and preventing drug interactions in hospital settings, as well as in subsequent outpatient therapy, is analyzed;
- Research on natural substances and probiotics Information on registered medicinal products derived from marine organisms has been studied and summarized, providing an opportunity for a comprehensive view of the development of marine pharmacology to date;
- Pharmacotherapeutic approaches in the treatment of diseases and acute intoxications Some pharmacotherapeutic approaches and features of drug therapy in cancer and cardiovascular diseases are analyzed. The advantages of the investigated drug groups in terms of efficacy and safety are shown. Scientific information on the use of intravenous lipid emulsion in the treatment of acute intoxications with lipophilic xenobiotics is also summarized.

### Scientific and applied contributions

- ➤ Pharmacokinetics and drug interactions The potential of plant extracts to inhibit the activity of drug-metabolizing enzymes *in vivo* has been investigated and it has been found that there is a risk of interactions when the examined extracts are taken simultaneously with medicines. The ability of peptide analogs to inhibit CYP3A4 enzyme activity has also been observed:
- ➤ Study of natural substances and probiotics Two liquid chromatographic methods were developed and validated. They could find application in the analysis of the investigated compounds in samples of different origins. The organoprotective effects of plant extracts, as well as the antioxidant activity of Bulgarian probiotic cultures were studied in rats. The developed experimental models can be applied in the study of the biological effects of other herbal and medicinal substances;

- ➤ Pharmacotherapeutic approaches in the treatment of diseases and acute intoxications Authors' data from a clinical case are presented, which have an important contribution to confirm the effectiveness and safety of intravenous lipid emulsion in the treatment of acute intoxications;
- ➤ Clinical pharmacy and public health A comprehensive and thorough review of literature data and documents related to the drugs included in Appendix No. 9 to Art. 17, para. 1 of Ordinance No. 28 of December 9, 2008 on the structure, order and organization of the work of pharmacies and the nomenclature of medicinal products. The analyzed information clearly shows the need to update and supplement the list of drugs requiring special storage. Questionnaires were conducted among children, and special survey cards were created for this purpose. The prepared questionnaires can be applied to collect data on the quality of life of children with bronchial asthma, as well as to assess the significance of some risk factors for the development of the disease in childhood.

A large part of the candidate's scientific work is focused on the study of potential drug interactions. A strong impression is made by the conducted experiments, in which different methods were used to study pharmacokinetic interactions - *in silico* (development of physiologically-based pharmacokinetic models), *in vitro* (Vivid® CYP450 screening kits) and *in vivo* (pharmacokinetic studies in experimental animals). methods. This testifies to the progress and improvement of the candidate in this field of pharmacology.

### Summary

The scientific indicators of chief assist. prof. M. Radeva-Ilieva exceed the minimum national requirements specified in RILDASRB and Appendix No. 1 of the Regulations for the Development of the Academic Staff at MU-Varna for occupying the academic position "associate professor" in professional direction 7.3. "Pharmacy" - with a minimum score of 400, the candidate has collected 610.82 points.

The values of the main groups of indicators are presented in the table:

A group of indicators	RILDASRB	Regulations for the Development of the Academic Staff at MU- Varna	Chief assist. prof. Maya Radeva- Ilieva
A	50	50	50
В	100	100	100
Γ	200	200	270.82
Д	50	50	190
Total points	400	400	610.82

Summarizing the results of the research work and the scientific indicators of chief assist. prof. Maya Radeva-Ilieva, PhD, it can be categorically concluded that they demonstrate her significant achievements in the field of pharmacology and fully satisfy the requirements of the RILDASRB and the Regulations for the development of the academic staff of the MU-Varna for occupying the academic position "associate professor":

- > She has 20 scientific publications, 6 of them in journals with an "impact factor" (JCR);
- > 19 citations (Scopus) / 16 citations (Web of Science) in foreign scientific journals are found;
- She has participated in 2 scientific research projects.

#### CONCLUSION

As a result of everything stated above, I firmly believe that chief assist. prof. Maya Radeva-Ilieva, PhD fully meets the conditions under Art. 24 of LDASRB, art. 53 of the RILDASRB and Art. 125 of the Regulations for the Development of the Academic Staff of MU-Varna, as well as the minimum national requirements laid down in Art. 24, para. 2 and Art. 2b, para. 2 and 3 of LDASRB, as well as the Regulations for its application for the occupation of the academic position "ASSOCIATE PROFESSOR".

Bearing in mind the pedagogical qualities and skills, the long-term experience in teaching students, as well as the high value of scientific achievements, I firmly believe that chief assist. prof. Maya Petrova Radeva-Ilieva, PhD, fully meets the requirements for acquiring the academic position "ASSOCIATE PROFESSOR" in the specialty "PHARMACOLOGY" for the needs of the Department of "Pharmacology, toxicology and pharmacotherapy" at the Faculty of Pharmacy at MU-Varna and I express my full support for her candidacy.

Stara Zagora, 16.02.2024 Заличено на основание чл. 5, §1, 6. "В" от Регламент (ЕС) 2016/679

COMPOSED:

/Assoc. Prof. V. Belcheva, PhD/