To: Chairman of the scientific jury for the competition for the academic position "Professor"

Pursuant to the competition announced in SP No. 83 of 03.10.2023 for the academic position "Professor" in the field of higher education 7. Health care and sports, professional direction 7.1. Medicine and scientific specialty "Oncology" for the needs of the "Oncology" Department, Faculty of "Medicine" of the Medical University - Varna.

Attached I present: **REVIEW** 

Reviewer: Prof. Dr. Zhasmina Mihaylova Milanova, MD, PhD, DSc

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Regarding: according to the procedure for occupying the academic position "professor" by field of higher education in professional direction 7.1 medicine, scientific specialist "Oncology", code 03.01.46.

Associate Professor Nikolay Vladimirov Conev, PhD, is the only candidate for participation in the announced (SP No. 83 of 03.10.2023) competition for the academic position of "Professor" in the field of higher education 7. Health care and sports, professional direction 7.1. Medicine and scientific specialty "Oncology" for the needs of the "Oncology" Department, Faculty of "Medicine" of the Medical University - Varna.

The procedure for announcing and conducting the competition is in accordance with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for the implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria, as well as the conditions for occupying academic positions according to the Regulations for the Development of the Academic Staff of the MU - Varna.

The presented set of materials on paper/electronic media is in accordance with Art. 137 of the Regulations for the Development of the Academic Staff of the MU-Varna.

I declare no conflict of interest in preparing the review.

I have not detected any plagiarism in the submitted papers for my review.

## 1. Analysis of the candidate's career profile

Assoc. Dr. Nikolay Conev was born in 1979 in the city of Silistra. He completed his secondary education at the HSM "St. Kliment Ohridski" - Silistra. In 2002, he graduated from the University of Economics - Varna - Bachelor of Economics, majoring in Economics. In 2009, he graduated with honors as a doctor at the Medical University of Varna, majoring in Medicine. In 2010, he started working (as a specialist) in the Medical Oncology Clinic, UMHAT "St. Marina" - Varna. For the period 2010/2015, he specialized oncology in the Medical Oncology Clinic, UMHAT "St. Marina". In 2015, he acquired specialty "Medical Oncology". Since 2016, he has been an oncologist at the Medical Oncology Clinic, UMHAT "St. Marina". Since 2018, he has been the head of the Medical Oncology Clinic, and since 2019, he has been the head of the "Oncology Clinics" department at UMHAT "St. Marina".

In 2013, he was appointed as a part-time assistant in the Department of "Propaedeutics of Internal Diseases" at the University of Medicine - Varna, from 2017 he was a full-time assistant at the Varna Medical University, and from 2018 he was chief assistant, and in the same year (2018) - associate professor at the department of "Propaedeutics of internal diseases". Since 2020, he is an associate professor at the Department of Oncology. Since 2019, he has been the head of the "Oncology and Rare Diseases" department at the Research Institute of the MU - Varna.

In 2016, he received his PhD degree in the scientific specialty Medical Oncology on the topic: "Microribonucleic acids miR-17, miR-21, miR-29a and miR-92 as potential markers for assessing the risk of relapse after adjuvant chemotherapy in patients with colon cancer'.

In the professional direction, Prof. Nikolay Conev conducts training for students (exercises and lectures) in the specialties "Oncology", "Propaedeutics of internal diseases, and "Surgery", and also conducts the "Oncopharmacology" course, which is

mandatory for oncology specialists. He is the supervisor of interns, specialists and PhD students.

The main scientific interests and contributions are in the field of tumor biology, distress in oncological patients, and also some clinical aspects of oncological diseases.

### 2. Evaluation of the candidate's research activity

Associate Professor Nikolay Conev, PhD, submits a list of 57 scientific articles and summaries for the period after habilitation as an associate professor for participation in the competition for the academic position "Professor":

- 12 full-text publications, equivalent to a monographic work, which are referenced and indexed in world-renowned databases with scientific information.
- Provides a total of 33 publications and reports that have been published in scientific publications, referenced and indexed in world-renowned databases of scientific information.
- Submits a total of 12 publications and reports published in non-refereed peerreviewed journals or published in edited collective volumes
- Participation in international and national scientific congresses and presentation
  of own research production at them 56 participations.

The Academic reference shows that the candidate has 2,405 citations, h-index 14, i10-index 19 (as of 2023) in Google Scholar, and he also has 1,687 citations and h-index 9 (as of 2023) on Scopus. Total impact factor by Academic reference - 1276.168.

Scientometric indicators presented for occupying the academic position "Professor" from the presented academic reference:

**GROUP OF INDICATORS A:** Dissertation thesis for obtaining the educational and scientific degree "Doctor (PhD)" - Conev N. Microribonucleic acids miR-17, miR-21, miR-29a and miR-92 as potential markers for assessing the risk of relapse after adjuvant chemotherapy in patients with colon cancer. MU-Varna; 2016. **(50 points)**;

**GROUP OF INDICATORS B:** Habilitation thesis = scientific publications (not less than 10) in publications that are referenced and indexed in world-famous databases with scientific information (100.67 points);

**GROUP OF INDICATORS C:** Publications and reports published in scientific publications, referenced and indexed in world-renowned databases of scientific information, publications and reports published in non-refereed peer-reviewed journals or published in edited collective volumes (315.22 points);

GROUP OF INDICATORS D: Citations (11,235 points);

**GROUP OF INDICATORS E:** Management of a successfully defended PhD student (100 points), acquired medical specialty (40 points), participation in a national scientific or educational project (15 points), management of a national scientific or educational project (30 points);

Additionally provided articles beyond the minimum scientometric requirements for occupying the academic position "Professor" - 3.

The presented academic reference shows that the minimum scientometric requirements for occupying the academic position "Professor" have been met.

The scientific career of Associate Professor Nikolay Conev began in 2012, when he was enrolled as a doctoral student at the Department of "Propaedeutics of Internal Medicine". For the period from 2012 to 2018, the most significant scientific successes are:

From a molecular biological perspective, the most significant studies cited (and scientific issues addressed) are related to colorectal cancer and microribonucleic acids (miRNAs) and their role in regulating oncogenic and tumor suppressor signaling pathways involved in the pathogenesis of CRC. The development of minimally invasive tests for the detection and monitoring of colon cancer can lead to a significant reduction in the diagnosis of the disease in late stages, early detection of recurrences or risk groups for recurrence after radical treatment, and also optimize its treatment. Despite the availability of validated markers (some protein blood markers), the discovery of new clinically relevant tests remains a challenge and a free territory, which, based on the results of recent studies, may be occupied by miRNA. For the first time in the available literature, new small molecules (microRNAs) are reported whose serum

concentration after completion of adjuvant chemotherapy has the ability to distinguish early patients (Nx nodal status) with relapse from those without disease relapse. This is also one of the few articles in the available literature dealing with the same problem for patients in stages II and III, demonstrating the superiority of these molecules over the standard marker used so far - CEA. Associate Professor Nikolay Conev examines the phosphatidyl-inositol 3-kinase (PI3K)/Akt signaling pathway, which has an important impact on neoplastic growth, survival, motility, metabolism and is the most frequently activated cascade in human tumors. Many PI3K-inhibitors have been synthesized and are entering clinical trials and medical practice. His review discusses the role of PI3Ks in tumorigenesis and the data supporting the use of PI3K inhibitors in clinical practice. The considered HGF/MET axis induces the development of proliferative invasive phenotypes and contributes to the development of drug resistance. The problem is important for understanding the mechanisms of tumor progression and provides attractive targets for antitumor therapy. Another issue addressed is autophagy, which is a homeostatic and evolutionary process that degrades cellular organelles and proteins, and maintains cellular biosynthesis in the face of impaired nutrition or metabolic stress. Autophagy is important in all cells to remove damaged or "old" proteins and organelles. Disturbances in autophagy processes are associated with susceptibility to metabolic stress, genomic damage, and tumorigenesis.

Close to autophagy is necroptosis, a recently discovered, caspase-independent form of programmed cell death, which requires receptor-interacting protein kinase 1 (RIPK1), RIPK3 and the protein with a kinase-like domain of mixed origin (MLKL), discussed by associate professor Nikolay Conev. Recently, this new form of programmed cell death has emerged as a potential new antitumor treatment strategy that can overcome apoptosis resistance.

The candidate also participates in a variety of scientific developments that extend beyond medical oncology.

3. Evaluation of equivalent publications (not less than 10) in publications that are referenced and indexed in world-renowned databases of scientific information

Associate Professor Nikolay Conev participated in the competition with 12 equivalent publications in publications that are referenced and indexed in world-renowned databases with scientific information. The presented publications are thematically related to sections of "Oncology", and a large part of them were developed by multidisciplinary teams in main categories:

- 1. Study of small non-coding RNAs as prognostic and predictive markers in cancer patients (B4.5, B4.6, B4.8);
- 2. Markers for response to immunotherapy treatment in solid tumors (B4.9, B4.11);
- 3. Association of time perception with distress in cancer patients; Association of the perception of time with other indicators for the assessment of the psychological state of oncological patients; Creation of ultra-rapid distress assessment tools (B4.7, B4.10, B4.12);
- 4. Assessment of access to facilities that offer oncology care and treatment outcomes (B4.3);
- 5. Study of circulating histones as markers for monitoring oncological diseases (B4.1);
- 6. Analysis of the CASPIAN study and its long-term results (B4.2, B4.4).

# 4. Complex qualitative evaluation of the teaching-methodical and teaching activities

Associate Professor Nikolay Conev has extensive experience as a teacher. The presented report on the academic workload shows that the candidate has the necessary teaching employment, exceeding the norm of the MU - Varna. Conducts exercises in the specialties "Oncology", "Propaedeutics of internal diseases", and also presents lecture material on "Oncology", "Propaedeutics of internal diseases" and "surgery". Leads the mandatory "Oncopharmacology" course for oncology specialists. He is the supervisor of interns, specialists and PhD students (three of whom successfully defended there work. He is the co-author of a textbook on Medical Oncology.

## 5. Scientific and creative achievements (scientific authority)

Associate Professor Nikolay Conev is a member of the Medical Oncology Expert Council at the Ministry of Health.

Head of the "Oncology and Rare Diseases" Department at the Research Institute of the Medical University - Varna.

He is a member of ESMO (European Society for Medical Oncology), ASCO (American Society of Clinical Oncology) and is an indexed author of J-Stage (Japan science and technology information aggregator).

Reviewer and member of the editorial staff of scientific journals.

Reviewer of a number of competitions for acquiring an academic position.

Reviewer of scientific projects.

6. General assessment of the applicant's compliance with the minimum national requirements under Art. 2b, paragraphs 2 and 3, respectively, of the requirements under Art. 2b, p. 5 of the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the specific requirements for MU - Varna in terms of directions for units with clinical activity, defined in the Regulations for the academic development of the MU – Varna

Assoc. Prof. Nikolay Conev fully meets the criteria of the Law on the Development of the Academic Staff in the Republic of Bulgaria for occupying the academic position "Professor". The scientific-research and publication activity of the candidate: his clinical-diagnostic activity in the field of medical oncology; his responsible participation in the education of students, specialists and PhD students; his contribution to building specialized personnel in medical oncology makes him a respected expert as a consultant, reviewer, member of a scientific jury, participant in examination committees, scientific projects, etc.

#### 7. Conclusion

Associate Professor Nikolay Conev is a specialist in the field of medical oncology, university teacher and scientist. The candidate meets the minimum national requirements under Art. 2b, paragraphs 2 and 3, respectively, of the requirements under Art. 2b, para. 5 of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the requirements specific to MU - Varna in terms of directions for units with clinical activity, defined in the Regulations for the academic development of MU - Varna for holding AD

"Professor". In view of the above, I strongly recommend to the respected Scientific Jury to apply the FC at MU-Varna to award the academic position "Professor" to Assoc. Nikolay Conev.

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

Prepared by:

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