Statement

by Assoc. Prof. Dr. EKATERINA BOYANOVA SOFTOVA-ZLATAROVA, MD, specialty "Pathoanatomy and Cytopathology"; MC "City Lab" Ltd., Varna

SUBJECT: Competition for the academic position of "Associate Professor" in General and Clinical Pathology, in the field of higher education 7. Health and sports, professional field 7.1. Medicine, and scientific specialty "General and Clinical Pathology", published in the State Gazette / no. 8 of 28.01.2020 / and on an approved proposal by the Faculty Council of the Faculty of Medicine, / ex. No. 20 / 16.03.2020 /, for the needs of the Department of General and Clinical Pathology, Forensic Medicine and Deontology at MU-Varna.

With a decision from a meeting of the Faculty of Medicine at MU-Varna under protocol № 20 / 16.03.2020 and with order № P-109-179 / 03.06.2020. of the Rector of MU-Varna, I was elected a member of the Scientific Jury, and based on Protocol № 1 / 10.06.2020 of the meeting of the scientific Jury, I was appointed to prepare a statement on the procedure for obtaining the academic position of "Associate Professor" with a candidate chief assistant Dr. Svitlana Yurieva Bachurska, MD in MU-Varna.

Dr. Svitlana Bachurska, MD, Head of Clinic "Clinical Pathology" at USBALO-Sofia, is the only candidate participating in the competition. According to the regulation, materials were submitted on paper and electronic media, including all necessary documents following the requirements of ZRASRB, the Regulations for its implementation, and the Regulations for the development of the academic staff at MU-Varna / Art. 127, para 1, para 2, para 3, and para 4 /.

Brief biographical data and career development of Dr. Svitlana Bachurska, MD

Dr. Svitlana Yurieva Bachurska was born on March 6, 1982, in the city of Odesa, Ukraine. She graduated from high school in 1999, after that she was accepted as a student at the Medical University of Plovdiv, where in 2005 she graduated as a medical doctor and obtained a master's degree in Medicine. For the period from 02.05.2007 to 15.04.2011, Dr. Bachurska worked as a medical representative of "Pfizer" Luxembourg SARL, Bulgarian branch. In the period 2011-2017 she was a resident in General and Clinical Pathology at the University Hospital "St. George" - Plovdiv. From 18.04.2011 to 01.01.2018 Dr. Bachurska was an Assistant Professor. In 2020 she was elected Chief Assistant at the Department of General and Clinical Pathology at the Medical University of Plovdiv. In the period 01.07.2016-03.01.2017 Dr. Bachurska worked as a specialist in the Department of General and Clinical Pathology at the Hospital - Asenovgrad. For a short period of time - 2018-2019, she was Head of the Department of Clinical Pathology at COC-Plovdiv.

In 2016 the candidate acquired a specialty in "General and Clinical Pathology" / diploma No 002419 / 28.06.2016 /, and in 2017 after successfully defending a dissertation on "Diagnostic value of EGR in the immunohistochemical panel for the detection of prostate cancer needle biopsies", acquired a PhD diploma in the scientific specialty General and Clinical Pathology/diploma No 196 / 01.06.2017 MU-Plovdiv /.

From 01.01.2020 until the present moment Dr. Bachurska works as Head of the Clinic of Clinical Pathology at USBALO EAD - Sofia. According to a transcript-extract from her employment record/issue No. 109 / 31.03.2020 /, the total professional work experience of Dr. Bachurska as of 30.03.2020 is 9 years and 11 months.

Dr. Bachurska holds certificates for completed courses in dermatopathology / 2018 Plovdiv, and June 2018- in Budapest; seminars on clinical trials conducted by the American-Austrian Foundation, Salzburg 2015 and 2017, specializations in uropathology at Johns Hopkins Hospital, Baltimore, USA, 2013; and at the University Hospital in Vienna in 2016; She has completed several courses on various topics at home and abroad, incl. course "Statistical software package SPSS-014 Plovdiv; courses on "Pathology of the female reproductive system" / Vincent Academy, Linz, Austria June 2018; and "Soft Tissue Pathology" - Vincent Academy, Linz, Austria May 2018; course - "Fundamentals of diagnostic pathology of the breast" - Vincent - Academy, November. 2017 and others.

Description of the scientometric indicators of Dr. Svitlana Bachurska, MD

Dr. Svitlana Bachurska participates in the competition for "Associate Professor" with a total of 40 scientific full-text publications that are not related to the dissertation. These include one monograph, 21 publications in referenced and indexed in world-famous databases / Scopus and Web of Science / and 18 publications in non-refereed journals with scientific review and collections.

Dr. Bachurska's dissertation for her PhD thesis on "Diagnostic value of ERG in the immunohistochemical panel for the detection of prostate cancer on core biopsies" was presented and evaluated by a Scientific Jury, which gives reason to believe that according to ZRASRB, criterion A of the minimum requirements for obtaining the academic position of "Associate Professor" is met.

In the presented monographic work "Morphological dilemmas of prostate oncopathology", Sf, 2020; ISBN 978-619-90826-1-4, written on 124 non-standard pages, illustrated with 23 figures and histological photographs, and dedicated to the problems of the pathologist and other specialists involved in the diagnosis of prostate cancer, Dr. Bachurska examines and makes an in-depth and comprehensive comparative analysis of the morphological characteristics between the histological variants of prostate cancer mimicking benign lesions and the spectrum of benign lesions mimicking prostate cancer. Applying modern classification schemes and algorithms for categorization of benign and malignant processes in the prostate, Dr. Bachurska presents and describes the classic, routine IHC markers involved in the diagnostic process, while focusing on the search for new, common molecular markers for verification of neoplastic transformation in the prostate. Among them stands out the marker ERG, which is considered as highly promising for the diagnosis of prostate lesions.

Since in the materials for the competition Dr. Bachurska there is no abstract of her dissertation attached, it is not possible to assess what part of the monograph is related to the dissertation. Criterion B of the minimum requirements for holding the academic position of "Associate Professor", according to ZRASRB is completed.

In the documents for participation in the competition for "Associate Professor," Dr. Bachurska has presented 21 publications, referenced and indexed in world databases / SCOPUS and Web of Science/. Of these, I accept as full-text only 9 publications /N $_{\rm 2}$ 1, 3, 6, 8, 12, 16, 19, 20 and 21 / since the rest included in the list of referenced and indexed in world databases with scientific information are abstracts from congresses published in Virchow Archiv, Health Technol, AM J Repr Med and Pathology /N $_{\rm 2}$ 2, 4, 5, 7, 9, 10, 11, 13, 15, 17 and 18 /. One of the articles /N $_{\rm 2}$ 14/ is published in full in J Biomed Clin Res 2014; 7/1 / 15-19 but is not referenced in SCOPUS or Web of Science.

The number of points received from the publications referenced in the databases is 116.6, and from the publications not referenced it is 129.5 – i.e., the total number of points is 246.1, thus criterion D of the minimum requirements for occupying the academic position "Associate Professor" according to ZRASRB is fulfilled /the required minimum number of points is 200/.

Dr. Bachurska's scientific publications are cited in a total of 28 publications, 10 of which are cited in scientific journals, referenced and indexed in world databases, 13 citations are in monographs and collective volumes with review and 5 citations are in non-referred journals. The data are from the academic reference for the citations by foreign and Bulgarian authors, made by USBALO-Sofia, which gives grounds to assume that criterion D is fulfilled. In the attached list of citations, however, Dr. Bachurska did not divide them into these categories.

The scientific communications presented by Dr. Bachurska at national and international forums are 50, of which 15 are abroad and 35 at national forums. Out of the total of 27 publications, Dr. Bachurska is the first author in 8 of them /29.6%/, second author is in 7 / 25.9% / and third and consecutive author - in the other 12 publications /44.4%/. This points for a significant personal contribution to the scientific research presented by the author.

From the review of the presented publications, it is impressive that Dr. Bachurska's research was carried out in collaboration with a wide range of specialists - a fact that testifies to interdisciplinarity in the scientific interests of the author. The topics of the presented publications are oriented mainly in three scientific areas, namely:

- Diseases of the genitourinary system, especially the prostate gland, and in particular, carcinoma developing in the gland;
- Research concerning the diagnosis and especially the modern guidelines in the treatment of diseases of the oral cavity
- Experimental studies to identify morphological changes associated with the development of closed-chest trauma

In some of her publications Dr. Bachurska presents rare clinical cases with different localization, and in some of them, to make a correct morphological diagnosis, the author proposes the application of a diagnostic immunohistochemical algorithm.

- In the list of actually printed full-text publications, apart from those included as evidence to cover the minimum requirements for the academic position of "associate professor", Dr. Bachurska has indicated 4 publications, which I do not accept because there is no evidence for them, and they do not appear in the author's Google Scholar profile.
- Evaluation of the contributions of the scientific works of Dr. Bachurska, MD
- On the basis of the analysis of the scientific works and the self-assessment of Dr. Bachurska, her diverse interests and her ability to work together in a team of specialists in different fields of science are impressive. The most significant are the contributions in the section "oncopathology", among them those related to the problems of prostate pathology.
- A. Contributions in the field of oncopathology
- 1. The comprehensive analysis of prostate pathology performed for the first time in Bulgaria is scientific-theoretical, with the application of the latest classification schemes and algorithms for diagnostic categorization of various benign and malignant processes in the prostate; an analysis of the most common neoplastic changes was made, the recognition of which is of key importance and direct dependence on the subsequent therapeutic measures.

- 2. For the first time in Bulgaria, the tendencies in the development of the oncological diseases of the urogenital system on biopsy material in the University Hospital "St. George" Ploydiv for the period 2001-2016 have been studied.
- 3. Rare tumors in the genitourinary tract (sarcomatoid carcinoma of the penis, paratesticular liposarcoma, adenomatoid tumor, atypical polypoid adenomyoma of the cervix, etc.) have been identified, studied, and described.
- 4. For the first time in our country, a genetic analysis was performed with a correlation of clinical and morphological features in pheochromocytoma-associated von Hippel Lindau syndrome, with a description of the morphological and IHC-characteristics of the tumor.
- № 5, 6, 7- demonstrate contributions related to the morphological changes and deviations of predictive markers of the mammary gland /Nº5/; morphometric diagnostic possibilities for distinguishing neoplastic from inflammatory diseases of the stomach /Nº6/, and the studied pathomorphological and ICH-features of CRC in correlation with microsatellite and KRAS-status /Nº7/.
- The results obtained and especially their interpretation reveals the qualities of a well-prepared, erudite scientist, able to find the way in the problems of complex and not yet fully clarified biological behavior of tumors with different localization and origin.
 - B. Contributions in the field of oral pathology.
- In the second scientific field, a large part of the research Dr. Bachurska has dedicated to research related to diseases of the oral cavity.
- 1. The studies in this field are conducted for the first time in Bulgaria, together with associates from the Department of Periodontology at FDM MU-Plovdiv, dedicated to histological changes in the mucous membrane of the oral cavity, obtained as a result of exposure to various photodynamic sources /lasers/;
- 2. The histological and molecular examinations and the results obtained with oral lichen planus, as well as the pathomorphosis of the disease when using laser sources are of practical value.
- 3. The contributions from the developments in collaboration with a team of SPF, in which the frequency and morphological characteristics of the premalignant lesions in the oral mucosa have been studied, have a practical value.
- 4. The histological assessment of the gingival changes in conventional and laser gingivectomy, made for the first time in Bulgaria together with the specialists from the Department of SPF, is a contribution;
- 5. Practical value is also derived from the dynamic comparative morphological analysis of bone substitutes in the surrounding tissues during the restoration of tooth extractions.
- C. Contributions in experimental morphology
- 1. An experimental model of closed-chest trauma has been developed together with a thoracic surgery clinic,
- 2. The histological changes in cardiopulmonary injury as a result of closed-chest trauma in mouse models were studied.

Applicable scientific developments, which address diagnostic and therapeutic problems in some rare tumors, as well as studies on prostate changes in correlation with category IV prostatitis on autopsy

material, with monitoring of the population of intraepithelial and stromal lymphocytes, compared to a normal prostate.

Seven of the attached contributions, which I accept without comment and remarks in the form they are presented, are of scientific and practical nature, among them the contributions with $N \ge 3.1$, 3.4, 3.5, and 3.6.

- Evaluation of the participation of Dr. Bachurska, MD in research and teaching

Dr. Bachurska was selected as a full-time assistant at the Department of General and Clinical Pathology at MU-Plovdiv in 2011, and since January 2018 she has been a chief assistant in the same department. From the reference for study load, it can be seen that for the presented 5 years / 2013-2019 / according to the normal limits the workload at MU-Plovdiv for non-habilitated lecturers was 270 hours, while the average annual workload of Dr. Bachurska for this period is over 300 hours /450-560 hours/ ie twice as much as the normal burden. The teaching experience of Dr. Bachurska up to 30.03.2020 is approximately 8 years.

Dr. Bachurska was the leader of the intra-university project NO-12/2018 at MU-Plovdiv on the topic: "Immunohistochemical subtyping of patients with colorectal cancer in correlation with KRAS mutation status and microsatellite instability." She was a scientific consultant for the dissertation of Dr. Nikolay Nikolov, SPF MU-Plovdiv on the topic: "Non-invasive methods for early diagnosis of oral preneoplasia".

Dr. Bachurska is extremely active in the field of education. Despite her relatively short pedagogical experience, she has participated in 16 textbooks, including the preparation of sample tests and protocols in general and clinical pathology for medical students in Bulgarian and English, issued by the Department of General and Clinical Pathology at MU- Plovdiv. She is a co-author of the illustrations, exam tests, and the terminological dictionary of a textbook for students in health specialties, 2018, TAFPRINT Ltd. ISBN 978-619-7091-16-8. Dr. Bachurska participates in the publication of a lecture course in General and Clinical Pathology for dental students in English, LAX BOOK- Plovdiv ISBN 978-619-189-066-8, a lecture course in General Pathology for medical students LAX BOOK - Plovdiv ISBN 978-619-189-058-3 and a lecture course in Clinical Pathology for medical students LAX BOOK-Plovdiv ISBN 978-619-189-071-2. Participates in the writing of the textbook "A Look at Pathology".

Conclusion:

Dr. Bachurska is a young but already built-up, methodically prepared and promising specialist pathologist, with short but active and effective clinical and pedagogical experience, that is why she deserves admiration and support. The scientific production of the candidate and her teaching experience fully meet the requirements of ZRASRB and the Regulations for the development of the Academic staff at MU-Varna. Taking into account the objective facts and based on my judgments, I believe that Dr. Bachurska has all the professional and pedagogical qualities to occupy the academic position of "Associate Professor" in the scientific specialty "General and Clinical Pathology" at the Department of General and Clinical Pathology, Forensic Medicine and Deontology "at MU-Varna. I confidently give my assessment "yes" and suggest to the members of scientific jury to vote positively for the award of Dr. Svitlana Yurieva Bachurska, MD. the academic position "Associate Professor" for the needs of the Department of "General and Clinical Pathology, Forensic Medicine and Deontology" at the Faculty of Medicine at MU-Varna.

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Prepared the statement:

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