

REVIEW

by an associate professor. Dr. Varvara Andonova Pancheva,
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Subject: Competition for the academic position of "associate professor" in the field of higher education 7. Health care and sports, professional direction 7.4. Public health in the scientific specialty "Social medicine and organization of health care and pharmacy", announced for the needs of the Faculty of "Public Health and Health Care" at the University "Prof. Dr. Asen Zlatarov" - Burgas, published in the "State Gazette", No. 1/02.01.2024 and on the university's website on 03.01.2024.

Pursuant to Order No. RD – 81/01.03.2024. of the Rector of the University "Prof. Dr. Asen Zlatarov" I have been appointed as an internal member of the scientific jury of the competition.

The only candidate in the announced competition is Dr. Vanya Bozhidarova Georgieva, chief assistant in the Department of "Organization and Management of Health Care" at the Faculty of Public Health and Health Care of the University "Prof. Dr. Asen Zlatarov" Burgas.

Dr. Vanya Bozhidarova Georgieva has submitted within the legal deadline all necessary documents for participation in the competition, corresponding to the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Rules for its Application and the Rules for the Terms and Procedures for Acquiring Scientific degrees and occupying academic positions at the University "Prof. Dr. Asen Zlatarov" - Burgas.

I. Analysis of the candidate's career profile.

Dr. Georgieva was born on January 28, 1978. From 1996 to 2002, she studied at the Faculty of Medicine of the Sofia University and obtained a Master's degree in Medicine. In 2007 graduated with a master's degree in Public Health and Health Management at the Faculty of Public Health at the Sofia University. In the period 2003-2009, he specialized in "N.I. Pirogov" UMBALSM and Sofia Medical University and obtained a specialty in neurosurgery Diploma No. 012382, AC series from 01.01.2009. In 2016, he defended his dissertation on the topic: "PHARMACOECONOMIC EVALUATION OF THE SURGICAL AND ENDOVASCULAR TREATMENT OF BRAIN ANEURYSMS" at the Medical University of Sofia. She was awarded the ONS "doctor" in the scientific specialty "Social medicine and organization of health care and pharmacy" in professional direction 7.4. Public Health.

In an effort to continuously upgrade his knowledge, he participated in various training courses as follows:

- December 2009 – Non-occlusive revascularization (cerebrovascular bypass): ELANA; UMC Utrecht, The Netherlands
- May 2013 – Basic techniques of Microsurgery – Vienna, Austria /CME/

- May 2013- Qualification course in Cerebral Revascularization - Vienna, Austria /CME/
- November 2014 - European course in diagnostic and interventional neuroradiology 13th cycle, Embryology, development and malformations of the nervous system, Antalya, Turkey/CME/
- April 2015 - European course in diagnostic and interventional neuroradiology 13th cycle Tumors of the nervous system, Rhodes, Greece/CME/
- June 2015 – ESNR Stroke course, Montpellier, France/CME/
- November 2015 - European course in diagnostic and interventional neuroradiology 13th cycle Vascular diseases of the nervous system Izmir, Turkey/CME/
- September 2015- 23rd course in Interventional Neuroradiology, University Hospital of Zurich, Switzerland/CME/
- April 2016 - April European Course in Diagnostic and Interventional Neuroradiology 13th Cycle Trauma and Degenerative Diseases of the Nervous System, Rhodes, Greece/CME/
- June 2016 - Qualification training: Cryosurgery in the treatment of pain - Sofia, Bulgaria.

After acquiring a specialty in 2009, he started working at the "N.I. Pirogov" UMBALSM, Sofia, as a doctor - neurosurgeon, and from 2012 to 2022 he worked at the "SOFIAMED" UMBAL, Sofia again as a doctor - neurosurgeon. From 2022 until now, he has been at the "RAHILA ANGELOVA" Medical Center in Pernik as a doctor - Neurology and Neurosurgery.

He has been teaching since 2001. In the beginning as a teacher of Cosmetics and Cosmetic Care at Top Beauty Professional Training Center, licensed to the National Agency for Professional Training until 2018. Won a competition for the academic position of Chief Assistant in professional direction 7.4 Public Health in scientific specialty: Social Medicine and Organization of Health Care and Pharmacy at the University "Prof. Dr. A. Zlatarov" Burgas to the Department of "Organization and Management of Health Care" at the Faculty of Public Health and Health Care in 2022. and up to that point participated in the teaching of the disciplines "Pharmacoeconomics", "Medical Ethics and Deontology", "General and Medical Sociology".

Fluent in English and basic German. He is a member of: Bulgarian Medical Union; Bulgarian Society of Neurosurgery; Bulgarian Society of Stroke.

II. General description of the submitted materials for the competition

The materials submitted by the candidate for the competition provide in full the necessary information for a quantitative and qualitative assessment of the overall academic development. Detailed and clearly organized documentation is provided in the form of references, lists and evidentiary material. A total of 41 scientific works, which are outside the list of publications from the dissertation work for awarding the educational and scientific degree "Doctor", have been submitted for review.

1. Evaluation of the scientific works of the candidate for the overall academic development

The scientific production of Ch. assistant professor Dr. Vanya Georgieva covers and repeatedly exceeds the minimum national requirements and those of the University "Prof. Dr. A. Zlatarov" Burgas for AD "Docent" (table 1).

Indicator Group Contents	Fulfillment of the requirements for associate professor Ch. Assistant Dr. Vanya Bozhidarova Georgieva	Minimum requirements of the university by groups of indicators for academic position associate professor
A Indicator 1	50	50
Б Indicator 2	0	0
В Indicator 3 и 4	100	100
Г Sum of metrics from 5 to 9	619,5	220
Д Sum of metrics from 10 to 12	130	60
Е Sum of metrics from 13 to the end	160	20
Everything	Total: 1 059,5 т.	450 points minimum

For his participation in the contest Ch. Assistant Professor Vanya Georgieva, Ph.D., presents:

- Monographs – 5 pcs.;
- Textbook – 1 pc.;
- Publications in the world-famous databases Scopus and WOS - 10 items;
- Publications and reports with scientific review – 25 items;
- Citations in scientific publications, databases with scientific information or in monographs and collective volumes in total 10 of which:
 - Citations in world famous databases - 8 pcs.;
 - Citations in other journals and monographs with scientific review – 2 nos.
- Participation in an international scientific project - 1 pc.
- Training of neurosurgery specialists - 2nd

The scientific research and publication activity of Dr. Georgieva can be systematized in four main directions with the following more significant scientific-theoretical and scientific-applied contributions:

➤ **Pharmacoeconomics and pharmaceutical marketing**

- In the field of pharmacoeconomics, a methodology has been developed for the application of a pharmacoeconomic model with the application of the pharmacoeconomic methods "cost-effectiveness" and "cost-utility"
- The first pharmacoeconomic evaluation of the surgical and endovascular treatment of brain aneurysms in Bulgaria was made, and the target study was aimed at the modern treatment of brain aneurysms in our country.
- An analysis was conducted with a focus on therapeutic approaches and cost-effectiveness for the treatment of brain aneurysms, which has a contribution of a scientific-cognitive or confirmatory nature for specialists from science and practice in the neurosurgical, pharmaceutical and economic spheres.
- In the field of pharmaceutical marketing, basic marketing concepts, basic policies, methods for qualitative and quantitative research of various types of consumer demand for goods and services are analyzed, market trends are presented. The contributions are of a scientific-applied nature for practicing pharmacists for the marketing of medicinal and other products and for the provision of pharmaceutical care and services,
- Marketing concepts and strategies are offered for modern marketing at the pharmacy level, which can be adapted and successfully applied at the individual level, in order to achieve the best therapeutic results for patients.
- The specific features of the marketing of cosmetic products in our country have been analyzed in accordance with the current European legislation regarding cosmetic products.
- The focus of pharmaceutical marketing has been changed - from the marketing of pharmaceuticals concerning pharmaceutical manufacturers, distributors and pharmacies to the marketing of pharmaceutical care provided to patients by pharmacists in pharmacies.

➤ **Medical ethics and deontology,**

- Several review articles summarize the latest approaches to the implementation of clinical ethical consultation and medico-ethical decision-making models in medical practice. The importance of medical ethics consultants in making clinical decisions and in building an approach to support both patients and physicians in their daily practice is presented.
- Basic medico-ethical principles and deontological imperatives for the needs of training health care specialists are clarified. For the first time, the possibility of a conflict between ethical principles and in which ethical situation which specific ethical principle is leading is pointed out. The generalization of the problems regarding assisted reproduction and euthanasia, as well as informing the students about the new direction Bioethics, is also of a contributing nature.
- Analysis of moral-ethical situations arising from decisions taken during extreme situations with the aim of forming an appropriate model for making medical-ethical decisions during a pandemic.
- Clinical ethical cases are presented and discussed for the purpose of practical training of health care professionals, which provide specific guidelines for dealing with everyday situations when working with patients with various health problems

➤ **Medicine, Neurology and Neurosurgery**

- Scientific works in the field of medicine, neurology and neurosurgery present a large number of interesting and rare clinical cases from medical practice, as well as summarizing literature data regarding the treatment mainly of cerebrovascular diseases.
- A complex approach in cerebrovascular revascularization has been described and successfully applied - high-flow bypass with arterial graft transplantation.
- Cases with different etiological and pathogenetic mechanisms for the occurrence and bleeding of cerebral aneurysms, which necessitated more complex approaches to surgical treatment, have been documented and analyzed.
- Results and extensive practical experience in the field of surgical treatment of brain aneurysms in Bulgaria are presented.
- Analyzed blood flow in numerical simulations based on imaging medical data of brain aneurysms, solving the problems surrounding the growth and bleeding risks of brain aneurysms with a scientific theoretical solution of blood flow patterns in brain vessels and aneurysms, and theoretical-experimental basis of the interaction of blood flow with vessel walls
- Cerebral blood flow and metabolism are described with a scientific-theoretical and cognitive character for the purposes of teaching students of medicine, pharmacy and dentistry and specialists in neurology and neurosurgery.
- The trends in the implementation of cerebrovascular bypass in the last decade and the technical requirements for performing cerebrovascular bypass are analyzed.
- High-flow cerebrovascular bypass with arterial graft transplantation for the treatment of complex cerebral aneurysms has been described and applied.
- Neuroradiological characterization of cerebrovascular revascularization interventions was performed.
- Cases of multiple organ failure after surgical treatment of patients with Covid 19 have been documented.
- Rare paraneoplastic conditions have been described as the initial manifestation of tumor diseases, as well as cases of secondary CNS metastatic diseases in lymphomas
- A rare surgical approach to the brainstem is presented, which has been cited four times by different foreign authors.
- Therapeutic behavior in alcoholic damage to the central nervous system - Wernicke's encephalopathy and alcoholic myelopathy - has been described.
- An analysis of the pharmacotherapeutic effectiveness of tyrosine kinase inhibitors for the treatment of patients with CML was performed. The results of the treatment of patients with targeted TKI therapy in Bulgaria, which destroys only the tumor cells, are comparable to those in other European countries and represent a major breakthrough in the treatment of patients with chronic myeloid leukemia (CML), which has turned from a deadly disease into a chronic disease
- Surgical cases with a contribution to practice in the treatment of brain and spinal metastases, cerebrovascular diseases and stem malformations are presented.

- The quality of life of patients after surgical treatment of spinal degenerative diseases was studied and evaluated
- The role of antibacterial prophylaxis in neurosurgery and pediatrics has been studied

➤ **Cosmetics and Phytocosmetics.**

As scientific-theoretical and scientific-applied contributions in this direction, we can point out:

- An evaluative analysis of the historical development of cosmetics was carried out, which shows that each culture forms its own conceptions of beauty, which it aims to achieve with the help of cosmetic means.
- With the help of scientific methods, the fallacy about vitamin D, the insufficient and incorrect use of sunscreens, the lack of evidence that cosmetic products containing neuropeptides are effective is proven.
- The most promising new products for protection against photoaging are presented are plant extracts containing active DNA repair enzymes incorporated into liposomes to be delivered to the lower layers of the skin where they burst and release the enzymes: Dimericine (clinically tested and FDA approved), Photolyase, UV Endonuclease, etc.
- Presented are the most promising new ingredients that support the action of the immune system, the so-called oligosaccharides, long chains of sugar residues: purified oligosaccharides from Aloe Vera extract in the product Aloeride and purified extract from the seeds of tamarind / growing tree in Africa and India/ which contains another type of oligosaccharides called xyloglycans has been shown to protect immune cells from UV rays.
- The practical foundations of cosmetic care are laid;
- Guidelines are given for effective search and application of safe cosmetic and phytocosmetic products for face and body.

2. Evaluation of monographic works and teaching aids

The candidate submits 5 monographs for review, of which 3 are collective and one is a practical guide for students:

1. **Monograph habilitation work "MARKETING FOR PHARMACISTS** when providing pharmaceutical services in pharmacies" discusses how and which marketing concepts can be applied at an individual level, unlike the available literature on marketing, which most often directs the reader to the main marketing problems of a corporate level, since industrial marketing is the most developed so far. The idea is presented that specialists can use marketing to build and consolidate their practice, to develop and provide innovative services, to generate and guarantee a successful business by striving to better satisfy the needs and wants of patients. The monograph contains two main sections: pharmaceutical marketing at the corporate level and pharmaceutical marketing at the pharmacy level, making it accessible and useful to all professionals in the field of pharmacy practice.

2. Monograph based on a defended dissertation "Pharmacoeconomic evaluation of surgical and endovascular treatment of cerebral aneurysms". It presents studies and analyzes of the health-economic aspects of the surgical and endovascular treatment of brain aneurysms in Bulgaria, and a pharmacoeconomic evaluation has been prepared. The pharmacoeconomic evaluation made is based on the pharmacoeconomic analyzes "cost-effectiveness" and "cost-utility". Trends in the behavior and costs of surgical and endovascular treatment of brain aneurysms abroad over a 10-year period after 1998 were also studied. The conclusions drawn were that when a brain aneurysm is equally suitable for surgical and endovascular treatment, the latter should be preferred, if available, regardless of its higher financial value.

3. The collective monograph "Cosmetics" with author team: Dimitrova, Zl., V. Georgieva, Zh. Amin, K. Andreevska includes history and basics of cosmetic care, marketing in cosmetics, legislative framework, cosmetic products and skin therapies for sunburn effect on the skin. It addresses problems such as aging, pigmentation, acne, rosacea and other pathological conditions. The monograph is a useful tool for students and professionals in professional schools of cosmetology and hairdressing, students in licensed cosmetology training schools and consumers of cosmetic products.

4. The collective monograph "Phytocosmetics" with author team: Dimitrova, Zl., V. Georgieva, Zh. Amin, K. Andreevska presents the application of plant products in cosmetics. The properties and application of a significant number of plants in phytocosmetics are described. The monograph is useful for botanists, beauticians, phytotherapists, students of cosmetics and pharmacy

5. Collective monograph/textbook/ on Neurosurgery for the training of students and specialists in neurology and neurosurgery "Cerebral blood flow and metabolism" with authors Tsv. Markova, V. Georgieva, dm.

Dr. Georgieva participated in writing a chapter related to cerebral blood flow and hemodynamics, describing the anatomo-physiology of cerebral circulation; measurement of cerebral blood flow; basic concepts of autoregulation of cerebral circulation, methods of measurement; pathological conditions of impaired cerebral blood circulation.

Vanya Georgieva is also the author of **1 textbook "Medicoethical and deontological cases. A practical guide for students of public health and health care"**. The purpose of the presented case studies is to build students' ability to apply the basic principles of medical ethics to specific situations, as well as to teach them to evaluate the moral actions of the participants in them.

Practical guidance helps to present as many points of view as possible and to grade decisions according to various principles derived from moral values on which moral norms are based. Builds students' ability for reflection and critical thinking, which are the basis of ethical analysis

Clinical cases and medico-ethical case studies are presented on issues such as conflict of ethical principles; informed consent; confidentiality and medical records; medico-ethical problems in terminally ill patients, euthanasia; medico-ethical problems of reproduction and transplantation

medicine; research ethics. The role of ethics committees in healthcare facilities, as well as ethical decision-making in medical practice, is examined.

3. Reflection (citation) of the candidate's publications

The positive citations presented by the candidate are 10, of which **8 citations** in scientific publications, referenced and indexed in world-famous databases with scientific information, of which publications with a very high Impact Factor can be seen in the attached reference:

- World Neurosurgery is listed at Research.com, Web of Science and Scopus. Impact Factor 2.104
- Journal of Neurosurgery is indexed in: UGC CARE, Scopus, Web of Science (SCIE); Impact Factor 5.4
- The impact factor of BMC Neurology is 2.903.
- Eur J Health Econ. 2019 Jun;20(Suppl 1):155-172. doi: 10.1007/s10198-019-01066-x. Epub 2019 May 18. PMID: 31104219; PMCID: PMC6544593. Impact Factor 4.4

2 citations in peer-reviewed collective volumes are also listed

4. Project activity

Vanya Georgieva participated as a member of a research team in an international project of the Institute for Information and Communication Technologies at the BAS.

III. Complex, qualitative evaluation of the teaching-methodical and teaching activities

Vanya Georgieva has considerable teaching experience and experience. In the beginning as a teacher of Cosmetics and Cosmetic Care at Top Beauty Professional Training Center, licensed by the National Agency for Professional Training from 2001 to 2018. From 2022, as the main assistant, he participates in the teaching of students from FOZZH in the master's and bachelor's program in the specialty "Health Management" in a total of 4 disciplines "Pharmacoeconomics" - lectures and exercises; "Medical ethics and deontology" - exercises; "General and Medical Sociology" - exercises, "Social Medicine" - lectures and exercises. Actively participates in the preparation of curricula for these disciplines, as well as for the disciplines: "Applied Psychology in Health Tourism" for the specialty "Health Tourism", educational and qualification degree "Master" - three and four semesters for full-time and part-time study; "Psychotherapeutic methods and practices in health tourism" for the specialty "Health Tourism", educational and qualification degree "Master" - three and four semesters, regular and part-time study; "Medical Tourism" for the specialty "Health Tourism", educational and qualification degree "Master" - three and four semesters, full-time study; "Medical cosmetics and bioproducts" for the specialty "Medical representative", educational and qualification degree "Master" - four semesters, full-time education. The study programs in which he is a co-author are a total of 11.

Conducts practical classes for two neurosurgery specialists at Sofiamed UMBAL 2017-2020 and 2021-2022.

Provides scientific and methodological assistance to students majoring in "Health Management".

There is the legally required auditorium occupancy.

IV. Critical notes and recommendations

I have no critical comments on the scientific and pedagogical activity of the candidate.

V. General assessment of the applicant's compliance with the mandatory conditions and the mandatory quantitative criteria and scientometric indicators

The volume and quality of the presented scientific production fully meets the requirements for occupying the academic position "Associate Professor" according to the Regulations for the organization and activities of the University "Prof. Dr. A. Zlatarov", the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Regulations for its Application. Dr. Vanya Georgieva's scientific output has indisputable contributions to the protection of public and individual health.

VI. Conclusion

Dr. Vanya Georgieva is a built and authoritative specialist with a wide range of professional and scientific interests and with considerable teaching experience. Her research activities are focused on current problems in the field of medicine, healthcare and pharmacy. Her scientific works contain valuable theoretical, methodical and scientific-applied contributions. Based on everything stated above, I confidently give my positive vote and propose to the honorable Scientific Jury to award Dr. Vanya Georgieva the academic position of "Associate Professor" in the scientific specialty "Social Medicine and Organization of Health Care and Pharmacy".

30/04/2024
City of Burgas

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/ Assoc. Dr. V. Pancheva, MD/