

STATEMENT OF OPINION

By Prof. Dr. NEVENA TSACHEVA, MD, PhD, DSci

On a competition for the academic position of Professor in the high education area 7. "Public health care and sport", with professional field 7.4 "Public health", scientific (academic) field "Organization and management of non-material production (health management)", published in State Gazette, issue 93 from 26.11.2019.

The only candidate: Assoc. Prof. Engineer Stoyanka Petkova Petkova-Georgieva

According to order of the Rector of the University of Prof. Dr. Assen Zlatarov, Burgas I have been appointed as an external member of the Scientific Jury for the mentioned above competitive procedure. After reviewing the materials provided on time, I give the following statement of opinion:

I. INFORMATION OVERVIEW

1.1. In 1994 assoc. Prof. Engineer Stoyanka Petkova Petkova-Georgieva graduated from the Geo Milev Secondary Language School, Burgas. She has completed two master's degrees: the first one is in 1999, in the field of the industrial management as engineer-economist and the other one in 2000 is "Technology of petroleum and chimothology", as engineer-chemist. She continues to study in a "PhD" (doctoral) degree and **successfully defends scientific thesis on "Controlling exploring and development in the enterprise activity using as an example the petroleum industry"** /diploma issued by HAC from 26.06.2006, scientific (academic) field 3.7. Business administration and management "Organization and management of the production (by industrial areas)". The 4 diplomas and training certificates attached to the materials demonstrate the broad range of professional competencies, that she achieves during the period 2002-2017, in particular: a diploma for passed training by "The Organization for prohibition of chemical weapons" on "Associate programme 2013" by which she becomes an associate member of OPCW, a diploma for passed training at The Moscow Government University "D. Mendeleev", Russia, co-organised with OPCW by the programme „Training Workshop in Russian on Best Practices for Developing the Responsible Care® Programme for the Chemical Industry“, a diploma for passed training at Surrey University, United Kingdom and diploma for passed training by "The Organization for

prohibition of chemical weapons” on „E-learning Course on History of The Chemical Weapons Convention and Chemical Disarmament”.

In accordance with these qualifications and trainings, she is a project manager, financed by the EU Funds, The Ministry of Labour and Social Policy, project SMAEP – BG 9915.01/TA, also she is a **quality officer and internal auditor** (БДС EN ISO 19011:2004) trained by The Union of Quality Professionals in Bulgaria, Association “Club 9000”, Sofiya.

1.2. This multi planned qualification and training profile of Assoc. Prof. Stoyanka Petkova also corresponds to **her past work experience, as well as her regular academic growth**. Since 2002 she has been Assistant Professor, Senior and Principal Assistant Professor at the University “Prof. Dr. Assen Zlatarov”. Since 2010 she is an associate professor /diploma № 26531 issued by HAC, in the scientific field 3.7. Business administration and management, cipher 05.02.21 “Organization and management of the production (by industrial areas)”. At the same time she is a consultant on projects from 2003 to 2006 in Lukoil Burgas, since 2007-2009 – she is a parliamentary assistant to a member of The European Parliament and also she is occupied with analysis of petroleum products and solid fuels as she is a deputy manager at a the University complex laboratory for the analysis of petroleum products and solid fuels. Assoc. prof. Petkova's professional experience in her versatility predetermines her opportunities as a scientist and university teacher in several areas of public health and health care. According to her activity from significant matter are **her administrative and managerial positions** as a member of Academic Council and the Faculty Council at FPHHC, since 2015 and now and a member of the Faculty Council at Faculty of Social Science, since 2010 and nowadays.

1.3. **Assoc. prof. Petkova's skills and competencies are excellent** in English language and at a very good level - German and Russian languages. Her technical skills and knowledge are very good including with a diploma for preparing presentations and conducting business correspondence in English using a computer and with the help of software products such as Excel, MS Word, Power Point, obtained from Burgas Free University.

With these multifaceted and extensive qualifications, Assoc. Prof. Petkova is a desirable and sought-after partner and participant in a number of editorial boards, such as: Journal of Marine Technology and Environment. Constanta Maritime University, Romania, ISSN (Online): 1884-6116; ISSN: 1844-6116. A member of the scientific board of “International science students session” at FPHHC, and as well she is a member of the science and editorial board of Proceedings of an international conference „Proceedings of the first International Seminar “Black Sea accidents – analysis of reasons and consequences”,

Romania, ISSN 978 – 954 – 8752 – 25 -1, issued in Bulgaria, Romania and Ukraine. Assoc. prof. Petkova is a member of the science and editorial board of book from an international conference „Proceeding of final conference “Risk management and assessment for prevention of ecological and technological risk in the Black Sea basin”, 2015, Burgas, Bulgaria, publisher Bryag, Burgas, ISSN 978-954-8752-28-2, printed in Bulgaria, Romania and Ukraine.

1.4. She realizes a very good social and public useful activity because of her precision and loyalty, good communication skills and flexible approach to teamwork, as well as the ability to plan and organize tasks, incl. when necessary and as a problem analyser. Her adaptability and creative thinking to introduce innovative practices is remarkable. She has a First Dan degree - black karate belt, karate coach and trainer. The attached reviews of activities implemented by Assoc. Prof. Petkova as a scientific, consultative, methodical, as an educational lecturer prove and demonstrate an increasingly rare harmonious and at the same time multifaceted professional expression.

II. SCIENCE-RESEARCH, THEORETICAL - METHODOLOGICAL AND SCIENTIFIC AND APPLICATION ACTIVITIES (CONTRIBUTIONS)

2.1. The submitted scientific papers in this competition correspond with the minimum requirements set out in Annex 1 in accordance with the Terms and Conditions for Acquisition of Academic Degrees and Occupation of Academic Positions of the University of Prof. Dr. Asen Zlatarov–Burgas.

The publications, revealed for the present competition are **37, all of them published after the “habilitation” of Stoyanka Petkova for an associate professor and also there are revealed 2 monographies, or as a total 39 items of scientific published work.**

According to the Declaration, entered for the NACID, in structural meaning the publications are as followed: **one “habilitation” scientific work** with title “Organization and management of healthy and ergonomic working conditions”, issued by the University with 477 pages in total in 2019 /ISBN 978-619-7123-00-5/ **and one monography** with title „Investigation of the propagation of laser radiation when passing through bio tissues”, also issued by The University with 230 pages in total **in 2020 /ISBN 978-619-7559-02-6/.**

There have been presented for the present competition **19 publications in scientific publications, referenced and indexed in world-renowned scientific information databases (Scopus; Web of Science)**, with correctly implemented protocols respectively certain points for the contribution of the authors as Assoc. Prof. Petkova is the only author in 3 publications and in 12 of them is the second author.

The publications and papers, published in non-referenced journals with scientific review or published in edited collective volumes are 18 in total, as she is the only author in 14 of them.

The published chapters in collective monograph are 4, as in 2 of them she is the only author and which are as a result from a successfully finished project for: "Encouraging entrepreneurship in the food industry in the BG-TR cross-border region" by Cross-border Cooperation Instrument for Pre-Accession Assistance Instrument Bulgaria-Turkey in 2012.

It is noteworthy that since 2010, during the post-"habilitation" period (after the academic position of Associate Professor), she has published more than 110 publications, of which 37 were submitted in this competition.

2.2. The required SCIENTIFIC INDICATORS are defined as follows:

H index (according to Scopus or Web of Science): 1

Google Scholar: h-index 7, i10 index 1,

The number of citations is 107, all after 2010, not all of which participated in the materials of the competition for associate professor. They are divided into the following groups: 32 citations or reviews in scientific volumes, referenced and indexed in world-renowned databases of scientific information or in monographs and collective volumes (according to Scopus or Web of Science), 2 citations in monographs and collective volumes with science review, 45 citations or reviews in non-referenced journals with science review.

ResearchGate: RG Score 14,13, h-index_i 6, h-index 2,

which fully corresponds and complies with the requirements according to the University Regulations, exceeding it in many positions.

2.3. Achievements in science fields according to the submitted publication work

In correspondence with the listed documents materials and publications for improvement, which are very carefully organized into lists and other materials, there can be summarized the following scientific fields, which are in a connection with the present competition for the academic position "professor":

2.3.1. Organization and management of healthy and ergonomic working conditions

2.3.1.1. SCIENTIFIC RESEARCH CONTRIBUTIONS

The organization and management of healthy and ergonomic working (occupational) conditions, based on real evidences, is the most reliable way and prerequisite for making management, medical and labor decisions at the same time. The lack of any of them leads to the emergence and / or development of a potential health risk. There are also prerequisites for socially significant diseases, of which permanent musculoskeletal disorders are leading and most significant for the occupied human resources. It is important to note, that in assoc. prof. Petkova's basic monograph, on the above discussed topic, there have been discussed the standards for the ergonomic design of technical systems that inevitably affect the health, safety, efficiency and hence the efficiency and productivity of the occupied human resources /B.1/. The research thesis includes a comprehensive theoretical and applied analysis with solutions for the continuous improvement of organizational and management processes, ensuring healthy, safe and ergonomic working conditions. Of interest is the information provided about the medical and health risk caused by the eventual human error. The principles of good ergonomic projects, which are also a prerequisite for good public and occupational health, sustainable working capacity and health security, are important in the Government and company policy. The monograph has made a significant contribution to the creation of a methodology for the algorithmic evaluation of operator activity with the developed algorithmic description of the management process, as well as with the developed methodology for modeling of the uncomfortable or forced working position (posture) when changing the parameters of the future designed workplace. From a significant interest for both – the educational process and the science-research development, is also the developed methodology in this monograph for analysis of the motor activity of the possible labor skills (able-bodied) population in a suggested region, which is tested by investigating the level of physical activity skills of people from 18 till 65 years old, as in the survey are included 675 people and can be useful for a cyclic and occupational-medical monitoring of the motor activity of the possible labor skills (able-bodied) population in a suggested region. In this scientific field in two publications is described the applied approach for assessment of human psychophysiological factors in the work process as a prerequisite for health risk /Г.8.8. and Г.8.15/.

Very essential but little investigated is the compliance with the ergonomic standards for health and safety at working conditions in the marine environment. In several publications there is provided researched results from studies conducted on occupational health risks in accordance with the standards of occupational health and safety at work in a real marine environment / Г.8.6, Г.8.10/ as the summarized conclusion is from an essential meaning for

identifying gaps in one or more individual parts of the maritime (navigation) system – from the design, the organization, the management till the total function they are at “the heart” of a number of incidents. The classification of the causes of ship accidents was made based on a 10-year study of insurance claims between 2007 and 2017 in the Black Sea area and the approved methodology for assessing the risk of marine casualties. The proven three-stage model for assessing the risk of health problems of working on board a shipping vessel provides new evidence for the conceptual basis of occupational medicine.

2.3.1.2. SCIENTIFIC APPLICABLE CONTRIBUTIONS

The publications I refer to in this area of application are related to the distribution of the average annual frequency of incidents depending on the type of ships from 2007 to 2017, as well as the results as a percentage of possible ship errors accident / Г.8.12. /. The presented summary model of the consequences of marine accidents that may result from ship-related incidents also supports the national occupational accident system in the direction of specific causes for them. /Г.8.18/. The developed methodological guide, with innovative teaching methodology for risk assessment and analysis in the Black Sea, for use in occupational health and medical practice, also supports the educational training process /E.20.3./.

2.3.2. Health risk of toxic effects of pesticides, petroleum and petroleum products

2.3.2.1. SCIENTIFIC RESEARCH CONTRIBUTIONS

A number of publications have provided data and results from science-research studies on the direct toxic effects of petroleum and petroleum products on the vital functions of the human body and the extent of its health risk. The analysis that is made impresses with the overall theoretical assumption regarding the health risk of their toxic effects in both human and ecosystem and nature elements. As a specialist chemist and technologist Assoc. Prof. Petkova makes specific proposals for evaluating the possibilities of using liquid fractions from the pyrolysis of oil as a fuel. The results of the published studies also find important implications for the response and clinical symptoms of living organisms as a result of the toxic effects of petroleum and petroleum products. / Г.7.1., Г.7.4., Г.7.5., Г.7.6., Г.7.7. и Г.8.11/. Several publications discuss methodological issues relevant to the present day to the toxic effects of pesticides on human health and the eco - equilibrium in wildlife, and more specifically with the destruction of expired pesticides. The regulated legal rules are often economically expensive and cause long time warehousing, and over time such pesticides with inspired date of use become a toxic pollutant for the ecosystem and cause socially significant

diseases, which nowadays has become one of the most important environmental issues and problems of the Bulgarian society. /Г.7.12., Г.7.13/

2.3.2.2. SCIENTIFIC APPLICABLE CONTRIBUTIONS

In publication E.20.2. from a science and practical interest in the field of the public health care are the published lectures, dedicated to the impact of the heavy metals on the environment and the human being health, also on the information about the toxicity and the clinical health problems with a variety of effects because of the toxicity. With a specific application are the publications exploring the thesis on the toxic effects on the health of man and nature because of the included in the lists of The Convention for the prohibition of the chemical weapons number of chemicals which are with the highest level of toxicity impact on the humans. The detailed types of the contemporary detectors (electronic and conventional) for testing and proving the presence or absence of these toxic chemicals in the environment are essential contributors to the basal constructive and primary prevention. According to the publications, the most popular chemical technologies and methods have been researched and the consequences for human health are described (Г.7.14.; Г.7.15.; Г.7.16.).

2.3.3. Health risk of toxic effects of substances containing chemical nanocomponents.

2.3.3.1. SCIENTIFIC RESEARCH CONTRIBUTIONS

A very good impression is made the published information about the nanocomponents, for which the European regulatory issues and other materials, including the WHO and the MOT, pay attention for the health authorities, and in this meaning are important for the health and prevention policy, including for our country.

In the science-research publications - Г.9.2.; Г.7.2.; Г.7.3. and part of E.20.2 from this scientific field it is investigated and proved the thesis, that the nanotechnology generates the so-called nanostructures, with qualitatively new physical, chemical and biological properties – they are also developed exactly for this purpose. The science-practical results, published in them, are as a result from the assoc. prof. Petkova's experimental work on an international science-research project at The Organization for prohibition of chemical weapons to The UN, in collaboration with laboratories that are at the headquarters at The Hague, also in Surrey University (United Kingdom) and at a chemical plant, situated on Jurong Island, Singapore. The obtained results lead to a conclusion that the use of many nanocomponents leads to increase of the morbidity rate among the population of the so-called socially significant diseases. It is proven also in another experimental research that macrophages that control the body's defenses cannot recognize particles smaller than 70 nanometers in diameter, and that

the chemical characteristics of nanoparticles give them new properties. The scientific contribution of the project is to classify the main foreseeable health risks from the use of nanomaterials as identified in the following areas: specific nanotoxicity; high biological mobility of nanoparticles, the risk of exposure to nanoparticles increases in the case of cosmetic products that have to be applied directly to the skin or other products such as food packaging, additives, vitamins, as the nanoparticles are not fixed in a matrix and consequently can be inhaled, The lack of exact information for products on the market that contain nanoparticles and public risks for the health and risks for the occupational working place.

2.3.4 Mathematical modelling of the thermal processes in the laser beam propagation in biological tissues

2.3.4.1. SCIENTIFIC APPLICABLE CONTRIBUTIONS

The represented monograph "Investigation of the propagation of laser radiation when passing through biological tissues" /Г.5.1./ can be classified as a scientific-research work in this science field, because in it there are approved and investigated practically applicable models that describe the processes of laser beam interaction with biological tissues using the Monte Carlo model, namely, all types of laser thermotherapy require careful determination of the "dosimetry" of laser radiation, reliable data on the optical and thermophysical parameters of the bio tissue and the use of the means to control these parameters. There is a wide variety of therapeutic methods with lasers with different radiation parameters. The described modern methodic in the monograph allow to choose different parameters of impact and influence (radiation mode, wavelength, power) over a wide range. The presented models for mathematical modeling of thermal processes in the propagation of the laser beam into biological tissues by assoc. prof. Petkova, in collaboration with assoc. prof. T. Petrova, confirm the thesis that the oncological diseases should be treated by a multimodal team capable of developing various software applications for numerical experiments in the analysis of the interaction between laser radiation and biological tissues, which will decrease the thermal impact on the surrounded bio tissue and as a result will be achieved an effect of much more saving of the biological damage to tissues, organs and the functioning of whole systems in the human body.

2.3.5. Development of a methodology with mathematical models for the impact of the interdependencies on the level of decentralization for the decision-making at micro- (a business health organization) and at macro- (the government) level in the field of the

public health care system and the development of a proper balanced score card system of key indicators.

2.3.5.1. SCIENTIFIC RESEARCH CONTRIBUTIONS

In several publications /Г.7.8., Г.7.10., Г.8.3. and Г.8.5/ have been theoretically developed approaches and methodologies to increase the organizational and technical level and the effectiveness of controlling (in some approaches for the economic analysis) in the health care business organizations activity. The monograph /E.20.1/ also has a major place. There have been investigated and approved the impact of two basic indicators: "subunit interdependences" and "knowledge transfer costs" on the level of decentralization and also on the structure of the performance measurement system (PMS). This is particularly important in the current problems of improving the effectiveness of managing a hospital using a traditional tool such as the scorecard. In co-authorship with V. Terziev in the first two and as an only author assoc. prof. Petkova formulate a methodology for examining the links between the level of decentralization of organizational decisions and the structure of a balanced scorecard with a model for those relationships. The obtained results are after an experimental investigation with testing of the developed model among 78 health managers (physicians and administration with skills and responsibilities in public health management working at different management levels in hospitals) in 18 structural subdivisions in total.

For the first time the authors prof. V. Terziev and assoc. prof. Petkova describe and investigate the main stage of the approach for building a system for supporting strategic decision making in a healthcare business organization (Г.7.11, Г.7.17, Г.7.18.). At a macro level, assoc. prof. Petkova presents a three-dimensional structuring of healthcare activities. It considers the multitude with which she uses interconnected elements as a whole with its characteristic internal and external relations with the occupational environment. (Г.8.1., Г.8.9. и Г.8.14.). In this unique way, assoc. prof. Petkova presents the logic of modeling the hierarchical causal relationships between the mission (vision), long-term goals, strategies, perspectives and medium-term strategic goals, as well as a computational model between them for the purpose of prognosis and development of the healthcare system.

2.3.5.2. SCIENTIFIC APPLICABLE CONTRIBUTIONS

In these scientific works is mostly evident the clear focusing of assoc. prof. Petkova on topics practically useful for the management and organization of healthcare. The results obtained from these studies offer directions in which the activities and opportunities to be managed in the direction of a positive annual financial result can be most effectively

evaluated by being tested by systems incorporating economic and financial indicators / Γ.8.9.; Γ.8.14/.

A model for empirically calculating the need for parallel decision-making for decentralization and the choice of a system of indicators for external factors is proposed. In order to establish functional interdependencies, a practical study of the relationships between the level of decentralization of decisions in the organization and the structure of the balanced scorecard was conducted. For this purpose, a methodology has been developed for collecting the necessary statistical information and for examining its structural and functional interdependences.

2.3.6. Application of the fuzzy set theory in computational procedures for the aggregation of indicators in a controlling system for strategic decision-making in business organizations in the field of public health.

2.3.6.1 SCIENTIFIC RESEARCH CONTRIBUTIONS

Assoc. Prof. Petkova, together with V. Terziev, has researched the valued results of macro-revenues earned from the healthcare sector in Bulgaria. The results have been compared by using three flexible mathematical models for econometric data comparison, namely TAR, SETAR and Markov Switching Model. The healthcare sector of the country faces constant reforms and legal changes, which has pushed the authors towards concluding that it is not possible to obtain concrete results for the causes which have led to the presence or absence of linearity, especially when it comes to the way of accounting revenues from the macro and micro activities /Γ 7.9/. This result is really valuable due to the large number of positive findings of policy makers in the health sector.

2.3.6.2. SCIENTIFIC APPLICABLE CONTRIBUTIONS

The following research papers Γ.7.19, Γ.8.4 and Γ.8.13 represent a methodology for conducting research on the interdependence between the level of decentralization in decision-making processes within business organizations and the construction of a suitable structure of a balanced system with indicators, which is related to the above-mentioned methodology for a balanced scorecard. What is important is that the system has been tested in seven Bulgarian hospitals. The method can be used in the application of the fuzzy logic theory for aggregating multiple indicators into a controlling system to support strategic decision-making. A contribution that has to be used in the field of health management is that by describing the fuzzy logic theory specialists can come up with a natural problem dealing approach in which the only source of uncertainty is the absence of strictly defined criteria for affiliation, rather than the presence of variants of chance. The most distinctive feature of the fuzzy set theory is

that, besides objective laws an important part is dedicated to subjective notions, reflections, and even emotions of people, which can be controlled by appropriate mathematical methods to support taking strategic decisions.

2.3.7. Strategic decisions for the development of health tourism in order to increase the quality of medical services in the field of public health

2.3.7.1. SCIENTIFIC APPLICABLE CONTRIBUTIONS

The wide spectre of topics and directions in which Assoc. Prof. Petkova has been working, include scientific papers on community services with an emphasis on the needs of the community and the development and maintenance of the health tourism sector. In co-authorship with Z. Karadzhova, she has determined the important place the good image of our country has for the creation of new ideas for the health tourism sector /Г.8.2/. Data about the urgent need of a healthcare reform in Bulgaria is also being discussed alongside problems such as resource security with optimization of all available resources. Good practice examples from countries in the EU and the USA are also presented. /Г.8.7 and Г.8.17/. Study also shows solutions by exploring health tourism as an alternative to mass seaside tourism. There is also a certain innovative interest in combining health, health tourism and telemedicine activities. In a separate chapter, together with Z. Karadzhova and A. Yanakieva, the authors hold a discussion on the types of financing systems and give the health system in Bulgaria good examples from countries such as Switzerland, a leader in bilateral health tourism /Г.9.1, Г.8.16/.

2.4. In the period 2000-2020, Assoc. Prof. Petkova was a leader and a member of 17 research projects, 11 of which were funded by external scientific and business organizations.

2.4.1. She has entered the current competition with four of her projects, namely: as the head of an international project: the United Nations Organization for the Prohibition of Chemical Weapons, 2013, The Hague, The Netherlands, as team member of the project Analysis of Health Tourism Development Opportunities in the region of Burgas (2019), as a consultant and team member of the project Encouraging entrepreneurship in the food industry in the BG-TR cross-border region, as an economy expert in the project for the Creation of interuniversity center for risk management and assessment for prevent of ecological and technological risk in the Black Sea (IUCRISKMAN)– tripartite project between Bulgaria, Romania and Ukraine for the period 2014-2015.

As a conclusion, the research and applied scientific contributions of Assoc. Prof. Petkova presented for the competition, her participation in national and international research projects realized after her first „habilitation“ have a multifaceted nature, which is focused on important aspects of public health, health management, prevention, medical science and practice. These factors, altogether, adequately defend her position as a candidate for the academic position.

III. STUDY AND EDUCATIONAL (TEACHING) ACTIVITIES

3.1. The academic load of four specialties, with curricula updated in 2017 by the Faculty board and properly recorded, is as follows:

- **Specialty Health management, Bachelor's degree:** Micro and Macroeconomics, Health Economics, Health Financing, Knowledge of stocks and inventory, Financial management in healthcare organizations, Financial accounting and control, Efficiency and competitiveness of healthcare organizations, Prices and pricing in healthcare and Health insurance systems and funds- 525 classes separated in 270 lectures and 255 practical classes;
- **Specialty Health management, Master's degree, broad profile:** Health economics, Analysis and design of payment systems in healthcare, Health financing and Research methodology- 180 classes separated in 120 lectures and 60 practical classes;
- **Specialty Health management, Master's degree, narrow profile:** Economics, organization and financing of medical institutions, Controlling of medical institutions, Analysis and design of payment systems in medical institutions, Research methodology- 195 classes separated in 120 lectures and 75 practical classes;
- **Specialty Health management, post-graduate qualification:** Health economics and Health insurance systems and funds- 40 classes separated in 30 lectures and 10 seminar classes;

The total academic load results to 940 hours, divided into 540 lectures and 400 practical classes, which exceeds the required minimum of hours.

For the period 2010-2020 Assoc. Prof. Petkova has written more than 28 study programs, which she has been teaching in Bachelor's and Master's programs. For the current competition she has presented 19 study programs (only in specialty Health management). The programs reflect clearly her scientific work, her participation in different forums for cooperation and her wide knowledge as a specialist and educator.

3.2 Analytical overview of the published handbooks and study materials

Undoubtedly the textbook that has a leading place, in several of the mentioned contributions in the field of research-making as well as in the education is the one focused on “Healthcare Economics”, designed for the subject Health Management for Bachelor’s and Master’s students. The textbook includes information and know-how about the theoretical and practical nature of the course “Health Economics”. It seems that the most intriguing topic for students and post-graduate students is the one that defines health as an economic and social category, as well as the role of public health as a major economic state potential and resource. According to me, for other subjects’ specialists can use the designated link between the types of employment and the economic aspects of wage formation in the country's economic profile/E.20.1/. The textbook on “Knowledge of stocks and inventory” in co-authorship with P. Petkov, Y. Tasheva and D. Indzhelieva plays an important role in both the taught discipline and in the collaboration with other disciplines. It focuses on issues related to the quality, safety, usefulness and competitiveness of raw materials, materials and finished products in an algorithm for their extraction, design, production, consumption or exploitation in compliance with the health and safety standards. The authors' scientific information about the toxicity of nanoparticles, the safety of these materials and their impact on the health of living organisms and the environment is impressive. I think that this is important for all students who are willing to learn about the foreseeable risks of using nanomaterial and the occupational risks they may pose to the public and at the workplace / E.20.2/. “The Methodological guide for risk assessment and analysis in the Black Sea”, written in co-authorship with M. Lybcheva and I. Markovska, published in both Bulgarian and English is intended for another group of educators, analysts, experts and professionals involved in the field of health risk assessment. Here, I also find an innovative idea for defining the health risk category in the context of general risk concepts, types of health risks, factors, taxonomy and hazard identification, assessment and analysis methods. This is important for the conceptual basis of any science. The above-mentioned methods for general health and health risk study, as well as the standards for health and safety at work, give me a reason to define the manual as a kind of binding tool for other medical preventive specialties and disciplines /E.20.3. /.

The guide for the “Establishment and development of new micro, small and medium enterprises in the food and beverage production sector in border regions of Bulgaria and Turkey”, published in Bulgarian and English, aims at those entrepreneurs who wish to create a sustainable enterprise in the food and beverage sector in order to show better business

performance. The textbook goes beyond the borders of the material and the sphere and can be used in public health training /E.20.4/.

As a conclusion, the textbooks published by the author show high literary knowledge which come close to the ideas of leading economists such as Robert Coase, Alexandra, and Lee Benham, which explains the appropriateness of an entity's existence through property rights and transaction cost analysis, including their analysis as a base, on which the theory behind an organization is based. Transaction costs include the costs for assessing health risks, ensuring healthy and safe working conditions and protecting the environment.

3.3 Scientific educational work

3.3.1 For the period 2012-2020 Assoc. Prof. Petkova is the mentor of four PhD students. She has participated for the present competition with two of them, who are in the scientific (academic) field 3.7. Business administration and management "Organization and management of the production (by industrial areas)", current topics: *Mediation as a form of improving business relations between contractors in times of global economic crisis* and together with Assoc. Prof. Ivanka Kirilova Ionova has worked on the topic *Optimization of stocks in processing enterprises*. The above-mentioned shows the big commitment and care Assoc. Prof. Petkova has for the young scientists and their career growth.

As a conclusion, the scientific productions and educational-teaching methods of Assoc. Prof. Petkova have encouraged me to give her multifaceted and complex very high note statement of opinion for her total achievements in the science-research, theoretical - methodological and scientific, consultant and application contributions.

I strongly recommend to the members of the distinguished Scientific Jury to give a positive assessment and award Assoc. Prof. Dr. Stoyanka Petkova Petkova – Georgieva with the academic position "PROFESSOR" in the scientific (academic) field "Organization and management of non-material production (health management)" at the University of Prof. Dr. Asen Zlatarov, Burgas.

Signature:

Prof. Dr

Medical

07.03.2020