



RECENSION

from

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Medicine, Medical University of Sofia, member of the scientific
jury, constituted according to Order № P 2019/30.09.2019 of
the Rector of the Medical University of Plovdiv

Concerning: competition for the academic post of “Professor” of the scientific specialty “Disaster medicine”, higher education domain 7. “Healthcare and sport”, professional field of 7.1. “Medicine” for the needs of the Department of Epidemiology and Disaster Medicine of the Faculty of Public Health, Medical University of Plovdiv. Promulgated in State Gazette Issue 56/16.06.2019.

One candidate participated in the competition: associate professor Rostislav Stefanov Kostadinov, MD, PhD, D.Sc., Vice-Dean for International Cooperation and Project Activities of the Faculty of Public Health, Medical University of Plovdiv, through documents, according to the Law for Career Development of the Academic Staff in the Republic of Bulgaria, the Statute for Application of the Law for Career Development of the Academic Staff in the Republic of Bulgaria and the Statute for the Organization and Activities of the Medical University of Plovdiv.

I. Professional biography

Assoc. Prof. Kostadinov was born 04.12.1965 in Plovdiv. In 1983 graduated his secondary education with distinction, and in 1991 graduated as MD with distinction from the Medical University of Plovdiv. Started his career as a military surgeon in 1991. Was a head of regimental medical service and a clinical ward in Military Medical Academy. Two-times sent on long-term assignments in the General Staff of

the Joint Command of the forces of NATO in Naples, Italy. Acquired medical specialties in internal diseases, orthopedics and disaster medicine. In 2010 finished his PhD study “Contemporary model of medical intelligence in missions abroad”.

From 2010 till 2016 is a guest professor of disaster medicine in the Medical University of Plovdiv. In 2016 assumed the academic post of associate professor in the Department of Epidemiology and Disaster Medicine of the Faculty of Public Health, Medical University of Plovdiv and since 2017 was elected Vice-Dean for International Cooperation and Project Activities of the Faculty of Public Health, Medical University of Plovdiv. In 2018 finished his D.Sc. study “Optimizing the exchange of medical information in disaster situations” in the Medical University of Varna.

Assoc. Prof. Kostadinov acquired additional professional skills through his participation in specialized courses in Bulgaria and abroad – Germany and Italy. He is a member of the expert council of “Disaster Medicine”, a number of scientific boards, reviewer for international journals, and a member of the editorial board of five international specialized journals. Member of the Bulgarian Physicians Union, Bulgarian Scientific Society of Disaster Medicine, Bulgarian Scientific Society of Public Health, Bulgarian Scientific Society of Epidemiology of Infectious and Non-Infectious Diseases, Union of Scientists in Bulgaria – Plovdiv branch, Secretary General of the International Disaster Medicine Association (IDMA), was a member of the American Academy of Disaster Medicine and the Bulgarian Society of Military Medicine.

The candidate has command of English (C1), Italian (B2) and Russian (B2) languages.

II. Scientific activities

For participation in the present competition assoc. prof. Kostadinov is presenting a list of 27 scientific works, not used in other competitions, according to the requirements of the Law for Career Development of the Academic Staff in the Republic of Bulgaria, presented in Table 1.

Table 1: Scientific works after assuming the academic post of Associate Professor

Publications	Number
1. Total number of presented works:	27
- in Cyrillic	18
- in Latin	9
2. According to the author's participation in the presented works:	
- only author	20
- first author	6
- second and subsequent author	1
3. According to the type of scientific works:	
- abstracts	2
- monographs	1
- chapters in monographs	2
- chapters in collective works	4
- publications in Bulgarian scientific journals	8
- publications in foreign scientific journals	5
- publications in compilations of scientific reports	2
- teaching tools	3

Of them 20 are stand-alone and in 6 the candidate is a first author. Second and subsequent author in 1 publication. 5 publications have been printed out in international journals and 8 in Bulgarian journals. The scientific production of the candidate also includes publications in proceedings of national and international congresses and symposia – 2. It also includes participations in 24 scientific forums with 48 reports (3 plenary) and two posters, where 16 of the forums are international – 9 held abroad and 7 in Bulgaria.

Assoc. Prof. Kostadinov participated in the realization of one national scientific project. He participated in five commissions electing assistant professors, prepared

one doctoral study recension and one review for the election of a professor. He is the scientific advisor of three physicians specializing in disaster medicine.

III. Features of the candidate's scientific activities

The scientific interests of assoc. prof. Kostadinov lie mainly in the fields of:

- Planning, preparation, management and execution of medical intelligence in disasters;
- Medical information and the potential of modern information and communication technologies for optimizing the exchange of medical information for the needs of medical provision management in disasters;
- Challenges to the medical provision of palliative and chronically ill patients in disasters.

A significant share of the scientific production of the candidate is taken by matters of medical intelligence as a first and necessary step of medical provision for disaster victims. Both dissertation works are dedicated to them. The model established in the first dissertation is applied mostly in military medical practice when preparing the necessary manuals for dangers and risk levels in the different countries, where Bulgarian military contingents may be deployed in international peacekeeping missions. Model could be easily applied to civil healthcare as well.

The second direction in the scientific works of the candidate is related to medical information and the potential of modern communication technologies to optimize the exchange of medical information for the needs of medical provision in disasters. The developed vocational courses and proposed involvement of mobile apps, social networks, web-based platforms, artificial intelligence and radio fans should be adopted in practice as soon as possible. The monograph published by the candidate and focusing on key notions and actions in appraising the medical situation can be considered a first necessary step.

An important aspect of the research of assoc. prof. Kostadinov is the application of modern information and communication techs in both medical provision and medical education. Considering the insufficient usage of the sharing platforms on the Internet (YouTube, Podcast, Facebook and others), some steps have been taken for their practical usage like the involvement of students in the Disaster Medicine web page on Facebook and a students forum for information exchange utilizing Spotify.

The third main direction in the research activities of assoc. prof. Kostadinov is the elucidation of specific reactions of chronically and terminally ill patients in disasters and their related needs of changes in the therapeutic and hygienic regimen. He also turns his attention to the under-reported in Bulgarian literature issues of indicators for vulnerability on the health system – pre-hospital and hospital care in disasters, which has a well pronounced importance for disaster medicine.

IV. Reflection of the candidate's publications in scientific literature

An academic query is presented, for 5 quotations in reviewed and indexed international data bases, 4 quotations in monographs and reviewed collections and 31 quotations in non-indexed and reviewed scientific journals.

V. Scientific contributions

The scientific contributions of assoc. prof. Kostadinov may be summarized in the following main directions:

Theoretical:

- Optimized model of medical intelligence;
- Determined is the direct relation of disasters with modern industrialization, urbanization and globalization;
- Analyzed the effect of observed trends in the medical community over the possibilities for medical provision in disasters;
- Analyzed are the characteristics of information from the point of view of disaster medicine;
- Defined are the level of medical preparedness and awareness, the needs of

medical information and the role of each unit of the information system of medical provision in disasters;

- Theoretical model of an interactive platform for optimized exchange of medical information in disasters;
- Defined are the main challenges to medical provision in disasters.

Applied:

- Based on the already established model for medical provision are prepared, printed out and tested in the medical provision of military missions abroad three handbooks – Appraisal of the medical situation in the Republic of Iraq, Appraisal of the medical situation in the Islamic Republic of Afghanistan, Appraisal of the medical situation in the State of Kuwait and Appraisal of the medical situation in Mali;
- The optimized model of medical intelligence is applied in determining the probable area for deployment of the Bulgarian field medical formation in support of the NATO mission in ISAF;
- Protocol for reporting disasters;
- Control lists with the medical information required from each unit of the information system of medical provision in disasters;
- An algorithm is proposed for assessing the state of the health system in the host country as well as algorithms for identification of different groups of dangers, pertaining to the requirements of NATO normative papers;
- Mobile application is proposed for the needs of medical provision in disasters complemented by an interactive web-based platform operative management of victims, that has been successfully applied in international military missions.

Educational:

- Programs for distant learning of the different units of the information system of medical provision in disasters;

- Analyzed are the prospects of mobile apps and social media to increase the effectiveness of disaster medicine training in medical universities and colleges;
- The adoption of the program for the elective discipline for medical students “First aid in emergency and disasters” helps to differentiate the scope of physician activities in the two types of life-threatening situations.

VI. Teaching activities

Assoc. Prof. Kostadinov has more than 10 years’ experience in teaching disaster medicine. Apart from the Medical University of Plovdiv the candidate has served as guest professor in the Economic University of Sofia, the University of Campania, Italy, and the NATO school in Oberammergau, Germany. In the Medical University of Plovdiv he participates in the lectures and seminars courses with students from the specialties “Medicine”, “Dental Medicine”, “Healthcare Management”, “Nursing”, “Midwifery”, “Management of Nursing Care”, as well as with students of the Medical College with specialties “Rehabilitator”, “Dental Technician”, “Assistant Pharmacist”, “Roentgen Laboratorian”, “Medical Laboratorian”, and “Public Health Inspector”.

The query for academic load of assoc. prof. Kostadinov prepared by the Academic Department of the Medical University of Plovdiv and presented in Table 2 shows load significantly surpassing the regulated one.

Table 2: Auditorily load for the period 2016 - 2019.

Scholastic year	Load in hours	Norms according to decision of AC
2016/2017	1704 (721 from exams)	180
2017/2018	1253 (568 from exams)	180
2018/2019	1239 (552 from exams)	180

VII. Correspondence with the minimum requirements for the academic post of Professor according to groups of indicators

The query demonstrates that assoc. prof. Kostadinov meets fully and in certain areas surpasses the requirements of the Law for Career Development of the Academic Staff in the Republic of Bulgaria, the Statute for Application of the Law for Career Development of the Academic Staff in the Republic of Bulgaria for assuming the academic post of "Professor" (Table 3).

Table3: Correspondence with the requirements of the Law for Career Development of the Academic Staff in the Republic of Bulgaria for occupying the academic post of Professor.

Groups of indicators	Required number of points	Number of points based on presented evidence
A	50	50
B	0	100
C	100	100
D	200	520
E	100	260
F	100	245

VIII. Personal impressions

My personal impressions of the candidate as a researcher and professor are highly positive. Assoc. Prof. Kostadinov exhibits intelligence, organizational skills, research tenacity and precision. He is a formed specialist and professor with high professional reputation in the fields of public health and disaster medicine.

CONCLUSION

Assoc. Prof. Kostadinov is the single candidate in the competition for the academic post of "Professor" of the scientific specialty "Disaster medicine", higher

education domain 7. "Healthcare and sport", professional field of 7.1. "Medicine" for the needs of the Department of Epidemiology and Disaster Medicine of the Faculty of Public Health, Medical University of Plovdiv.

He is presenting his application with 27 scientific works, which contain theoretical applied and educational contributions to disaster medicine. Assoc. Prof. Kostadinov is a respected researcher and professor of high esteem and undoubtful personal qualities.

In view of the aforementioned and taking into consideration the requirements and criteria of the Law for Career Development of the Academic Staff in the Republic of Bulgaria, the Statute for Application of the Law for Career Development of the Academic Staff in the Republic of Bulgaria and the Statute for the Organization and Activities of the Medical University of Plovdiv, I recommend convinced the respected scientific jury to elect assoc. prof. Rostislav Stefanov Kostadinov, MD, PhD, D.Sc. as Professor for the needs of the Department of Epidemiology and Disaster Medicine of the Faculty of Public Health in the Medical University of Plovdiv.

22. 11. 2019

Sofia

Reviewer:



Assoc. Prof. V. Zahariev