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To: Ms prof. Dr. Lyudmila Ivanova, PhD  
Dr. Of Medicine  
Chairman of a scientific jury,  
determined by Order  
of the Rector of Sofia University  
No PД 38-510 / 22.10.2020

Your protocol from 11.11.2020 (*1-st meeting*)

**Attached I present: A Review**

of a competition for the academic position of "ASSOCIATE PROFESSOR" in the professional field 7.4. Public Health / Kinesitherapy /, announced for the needs of the Medical Faculty of Sofia University "St. Kliment Ohridski", Announced in "State Gazette", issue 67 / 28.07.2020, page 55, article 6; with a single candidate Natalia Petrova Petrova, Ph.D. in Pedagogy

Reviewer: .....

**Prof. Dr. Ivet Borisova Koleva - Yoshinova, Dr. of Medical Science**

Professor of the High State Commission, Scientific specialty "Physiotherapy, Health resort medicine and Rehabilitation" ; Medical University of Sofia, Faculty of Public Health .....

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I declare that being a reviewer is not in contradiction with the requirement for absence of conflict of interests in the sense of §1, item 2a of the additional provisions of *ADASRB* between me and the candidate. In my opinion, restrictions related to Art. 33 of *LDASRB* are not present.

*The review is compiled in accordance with the requirements of the Law for Development of the academic staff of the Republic of Bulgaria (LDASRB) and Section III / Section IV of the Rules for application of LDASRB (RALDASRB) - Conditions and procedure for holding the academic position of "Associate Professor"*

To: [sdo-mf-su@abv.bg](mailto:sdo-mf-su@abv.bg)

To: Ms prof. Dr. Lyudmila Ivanova, Ph.D.  
Chairman of a scientific jury,  
determined by Order of the Rector of  
Sofia University Number РД 38-510 / 22.10.2020  
**ACCORDING TO THE PROCEDURE FOR TAKING  
AN ACADEMIC POSITION “ASSOCIATE PROFESSOR”**

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## REVIEW

From

**Prof. Dr Ivet Borisova Koleva - Yoshinova, PhD, Dr. of Medical Sciences**

*About:*

PROCEDURE FOR TAKING  
THE ACADEMIC POSITION “ASSOCIATE PROFESSOR”  
(In the field of higher education 7. Healthcare and sports; professional field 7.4.  
Public health / Kinesitherapy I, in need of Medical Faculty at Sofia University “St. Kliment  
Ohridski”)

*Related to a contest, announced in the “State Gazette” p. 67 / 28.07.2020; with a single candidate  
admitted to participate by the admissibility committee of Medical Faculty at Sofia University:*

***Nataliya Petrova Petrova, Ph.D. in Pedagogy***

*This review is prepared in compliance with the requirements from LDASRB, RALDASRB and  
internal Regulations (Regulations for the conditions and the order for acquiring scientific degrees and  
holding academic positions in Sofia University „St. Kliment Ohridski”; Rules for the implementation of  
the European Chart of Scientists and the Code of Conduct for the Recruitment of Researchers in  
Sofia University / 21.12.2016).*

### 1. SHORT BIOGRAPHY

***(Career profile analysis based on provided data)***

Kinesitherapist Nataliya Petrova, Ph.D. in Pedagogy, was born in 1974 in Nikopol. She graduated Kinesitherapy, South-West University (SWU) “Neofit Rilski”, Blagoevgrad. (Attached Diploma of Bachelor’s degree in Kinesitherapy / 1999). In 2010, she graduated as a Master in Educational Management, SWU “Neofit Rilski”, Blagoevgrad (Attached Diploma for Master’s degree in Educational Management).

There are additional qualification courses in the field of Kinesitherapy: Bobath Introductory - Centre for Children with Special Needs, New methods for working with children with cerebral palsy; Kinesio Taping technique; Manual Therapy – Mulligan concept, Course for working with children with Down syndrome.

In 2015 she acquired the Philosophy Doctor' degree in Pedagogics – scientific specialty "Theory and Methodology of Physical Education and Sports Training (including Methodology of Therapeutic Exercises)".

The professional realization of kinesitherapist Petrova is predominantly in the field of kinesitherapy and rehabilitation - lecturer in the system of SWU - Blagoevgrad / 1999-2016 / - assistant since 1999, senior assistant since 2003 and chief assistant - since 2011. Evidently there is consistency in her academic development.

Since 2017 she has been a part-time lecturer at Sofia University.

The candidate has significant experience in clinical rehabilitation practice - she worked in the Outpatient Clinic for Specialized Medical Care in Physical and Rehabilitation Medicine "Faith, Hope and Love" - in Blagoevgrad /2000-2016/.

She is a member of the Association of Kinesitherapists in Bulgaria and the Association of Kinesiotaping.

She has computer skills using Microsoft office (Word, Excel, PowerPoint).

She speaks Russian and English foreign languages.

### Conclusion on Section 1

**The candidate covers the obligatory conditions of art. 105, paragraphs 1 and 2-a, of the Regulations of Sofia University for taking the academic position "Associate Professor":** *she has acquired "Phylosophy Doctor" under a doctoral program in the scientific field of the announced competition; she has been a senior assistant at another university for more than two academic years and has been a part-time lecturer at the same University - also for more than two academic years.*

## 2. SCIENTIFIC ACTIVITY

### 2.1. ANALYSIS OF SUBMITTED PUBLICATIONS

*(General description of submitted documents for the contest)*

*Kinesitherapist Natalia Petrova is the author and co-author of a number of publications in the field of kinesitherapy and rehabilitation of many socially significant diseases.*

The list includes publications of the kinesi therapist Petrova (since 2000):

- + Dissertation (PhD) and abstract on the topic „**THE ROLE OF KINESITHERAPY IN IMPROVING THE QUALITY OF LIFE IN PATIENTS WITH RHEUMATOID ARTHRITIS**“, including 4 cited publications on the topic – scientific specialty "Theory and methodology of physical education and sport training (incl. methodology of the therapeutic exercises)" /from 2015 /;
- + Independent monograph „**RHEUMATOID ARTHRITIS - COMPLEX DIAGNOSTIC AND THERAPEUTIC APPROACH**“ /2020/;
- + Participation in a collective monograph with one full chapter /2009/;
- + 2 publications in international journals (one of them submitted for this contest);
- + 31 publications in Bulgarian journals (including full text from scientific forums);
- + 15 published abstracts from scientific conferences and congresses;
- + 12 titles from participation in scientific forums without published abstracts. These can be accepted as scientific activity but not considered as publications.

Kinesi therapist Natalia Petrova presented data for participation as a member in 4 research projects - of the Ministry of Education and Science, of the European Social Funds, and of SWU "Neofit Rilski" - Blagoevgrad.

**In current contest**, the candidate participates with the following scientific work:

- ✓ One abstract;
- ✓ One independent monograph;
- ✓ One publication in international magazine; Petrova is the fifth author;
- ✓ 16 publications in Bulgarian journals (15 of which were published in NACID National Reference List);
- ✓ 6 publications in collections - full text of reports presented at scientific forums;
- ✓ I have not reviewed 15 published abstracts of participation in scientific conferences /which are not attached/.

I acknowledge the total of 25 publications for taking part of the contest for taking the Academic Position "Associate Professor" /1 PhD abstract, 1 independent monograph, 16 publications in Bulgarian journals and 6 publications in collections/. Substantial part of these publications were published in specialised editions.

SCIENTIFIC PRODUCTS:		
	TOTAL:	For participation in the contest for academic position of "ASSOCIATE PROFESSOR"
1. PUBLICATIONS IN SCIENTIFIC JOURNALS ABROAD	2	1
2. . PUBLICATIONS IN SCIENTIFIC JOURNALS IN BULGARIA	31	22
In Bulgarian journals		16
In Bulgarian collections		6
3. PARTICIPATION IN MONOGRAPHS	2	1 Independent
4. MESSAGES AND REPORTS IN CONFERENCES AND CONGRESS IN BULGARIA	15	-
5. EDUCATIONAL AND SCIENTIFIC DEGREE „DOCTOR“		
□ DISSERTATION	1	
□ PhD ABSTRACT	1	1

**Note:**

Of all the above-cited publications in Bulgarian periodic scientific journals and Bulgarian collections, **kinesitherapist Natalia Petrova** is the sole author for three of them, the first author in one publication, second author in two publications, third and following author in fifteen publications.

## 2.2. SCIENTIFIC ACTIVITY - Contributions

The main directions of research for **kinesitherapist Natalia Petrova, PhD in Pedagogy** are in the field of physical treatment and rehabilitation of some socially significant diseases. I accept the main groups of contributions presented by the candidate. However, the most important in my opinion are the thematic areas of rheumatological rehabilitation and rehabilitation of children.

For convenience, I have summarized the subsections of the thematic area of rheumatological rehabilitation in a general group. The numbering is taken from the list of submitted publications. Contributions from the abstract and the monograph are also

included, despite being peer-reviewed and given the fact that they are difficult to differentiate.

*The analysis of the scientific activity does not include the published abstracts from scientific forums, but I acknowledge them as scientific activity.*

<i>No</i>	<b>THEMATIC DIRECTION</b>	No of publication from submitted documents
<b>1</b>	<b>RHEUMATOLOGICAL REHABILITATION</b>	
<b>2</b>	<b><i>Complex kinesitherapy and occupational therapy at RA</i></b>	<i>Dissertation and works related to dissertation;</i>
<b>3</b>	<b><i>Kinesitherapy, occupational therapy and ergonomic at RA</i></b>	<i>Monograph;</i>
<b>4,</b>	<b><i>Assessment of quality of life in rheumatological patients</i></b>	<i>Publications in reference Bulgarian journals and collections /16, 19, 21, 22, 23/</i>
<b>5</b>	<b>PEDIATRIC KINESITHERAPY</b>	<i>Publications 12 u 14</i>
<b>6</b>	<b>INNOVATIVE PHYSIOTHERAPEUTIC METHODS AND KINESITHERAPY</b>	<i>Publications 5, 7, 8, 9, 10, 11, 13, 18, 21</i>
<b>7.</b>	<b>VARIA – obesity, etc.</b>	<i>Publications 1, 2, 3, 4, 6</i>

#### CONTRIBUTIONS IN THE THEMATIC FIELD

##### „**RHEUMATOLOGICAL KINESITHERAPY AND REHABILITATION**”

The candidate is the author of the first PhD dissertation in Bulgaria defended in the field of kinesitherapy of rheumatoid arthritis /RA/, also the first monograph in our country on the topic of complex treatment of RA.

The dissertation for the scientific and educational degree "Doctor" of kinesitherapist Natalia Petrova is on the topic „**THE ROLE OF KINESITHERAPY IN IMPROVING THE QUALITY OF LIFE IN PATIENTS WITH RHEUMATOID ARTHRITIS**“. It contains a detailed study of the possibilities of a complex kinesitherapy program in patients with rheumatoid arthritis. It also presents contributions of scientific-theoretical, applied, methodological and confirmatory nature. A standardized SF-36 test was applied in combination with other traditional methods of examination in kinesitherapy; A bespoke kinesitherapy program is applied where a comparative analysis is performed between the effects of the classical kinesitherapy program and the own complex program, which also contains elements of occupational therapy.

In her monograph „**RHEUMATOID ARTHRITIS - A COMPLEX DIAGNOSTIC AND THERAPEUTIC APPROACH**“ she analyses the impact of a comprehensive rehabilitation approach in patients with rheumatoid arthritis (RA) - such as kinesitherapy, detailed analysis of elements of occupational therapy, ergonomics, some preformed modalities. Emphasis is placed on educating the patient with RA, as well as the interaction between patient, rheumatologist and physiotherapist.

Some publications [16, 19, 22, 23] include modern methods for research and testing the quality of life of patients with rheumatic diseases, incl. rheumatoid. Self-assessment by the patient and his relatives is also included. Some of the recommendations of the European League for Rheumatoid Arthritis (EULAR) for improving the quality of life are applied. The methods of kinesitherapy, ergotherapy and ergonomics, incl. assessment of the quality of life of patients with rheumatic diseases are presented and analysed in details. Survey results have been published in journals at home and abroad. The current achievements in the use of kinesitherapy, occupational therapy and ergonomics are summarised - both from the point of view of RA and for people with disabilities.

#### CONTRIBUTIONS IN THEMATIC FIELD

##### „**REHABILITATION OF PATIENTS IN CHILDHOOD**“

The main emphasis is on the **rehabilitation of children** with motor retardation, as experimental results of multisensory kinesitherapy in children from 0-12 months. A significant contribution is the introduced and approved methodology for working with children and their parents /as co-therapists/, as prevention of delayed motor development. Some of the research methods and kinesitherapy are implemented through inclusion in the curricula.

#### CONTRIBUTIONS IN THE THEMATIC FIELD „**INNOVATIVE PHYSIOTHERAPEUTIC METHODS AND KINESITHERAPY**“

Of particular interest in this group of contributions is the application of some modern techniques, such as kinesiotaping and preformed factors in the rehabilitation of patients with diseases of the musculoskeletal system. The techniques, indications and evaluation of the results are presented in some papers [7, 9, 10, 11, 13, 21]. Results from the application of kinesiotaping for injuries in combination with kinesitherapy have also been published.

#### PUBLICATION GROUP **VARIA**

The candidate also has several publications with diverse topics. In this group I would emphasize the issues concerning the marginal states of health, body weight and obesity [1, 2, 3, 4, 6]. Other studies present initial experience and review of literature using various methods for diagnosis, assessment and treatment of obesity. The research reveals, poor physical education classes can lead to overweight and obesity. The importance of exercise for the prevention of overweight is emphasized.



### 2.3. SCIENTIFIC ACTIVITY - CITATIONS AND IMPACT FACTOR

Kinesitherapist Nataliya Petrova has presented an official document from the Central Medical Library of MU - Sofia - reference for citations № 306 / 12.08.2020. The titles of 30 Bulgarian citations are attached in this reference. Auto Citations are excluded from the list. In the cited publications candidate N. Petrova is the sole author in 5 publications with a total of 10 citations; first author in one article with 3 citations, second author in one publication with 1 citation; third author in 1 publication with 1 citation, member of an author team in 2 publications with a total of 12 citations. I should note that there is only 1 citation from 2020, the rest are until 2019 incl.

The candidate has attached a copy of a journal, referenced in international databases - with an article by Bulgarian authors, which contains a citation of her dissertation work.

There is no data on the impact factor of the candidate's publications.

#### **Conclusion on Section 2:**

**The final evaluation of the candidate's scientific works for her overall academic development, with an emphasis on the works in recent years, comply with the requirements of Article 105, paragraphs 3 and 4:** published monographic work is presented, her publications meet the minimum national requirements for professional field PH and the additional requirements of SU. It also meets the requirements of Article 105 - paragraph 5 / there is no proven plagiarism in the scientific works /.

**I would add that the candidate shows regular productivity while her publications maintain good communication skills and ability to work in a team.**

**All documents required by Article 107, paragraph 1, incl. reference for the citations - art. 107, item 13 are presented. The candidate submitted documents for 31 citations.**



### 3. METHODOLOGY AND TEACHING ACTIVITY

*(Complex qualitative assessment of teaching activities)*

In the period 2000-2016 the candidate worked at SWU "Neofit Rilski", where she was part of the teaching in the following educational disciplines: "Kinesitherapy in patients with internal diseases", "Sports Medicine", "Kinesitherapy in geriatrics", "Occupational therapy and ergonomics", "Massage". Later she taught at Sofia University "St. Kliment Ohridski" and at the Professional Sports College "Bio Fit" in Sofia.

In SWU she has participated in the development of curricula and programs for the specialty Kinesitherapy; She was a member of the State Examination Commission and the Audit Committee of the Department of Kinesitherapy, Faculty of Public Health and Health Care. In 2014 she was the organizer of the Conference "20 years of the specialty Kinesitherapy in Blagoevgrad". She also presented a diploma for contribution to the development and establishment of the specialty "Kinesitherapy" (2014).

According to a submitted document (References for teaching and learning activities from the Faculty of Medicine of Sofia University) for the last three years physiotherapist Natalia Petrova has taught at the Faculty of Medicine of Sofia University – students-bachelors in the specialty "Medical Rehabilitation and Occupational Therapy" (Bulgarian-language training): educational disciplines "Massage" (lectures – L), "Kinesitherapy for internal diseases" (L), Occupational therapy and ergonomics (Practice-P) - with a load of 690 hours of classroom employment and 808.8 hours of total employment, distributed as follows:

<i>The academic year</i>	<b>ANNUAL WORK LOAD</b>
2017 / 2018	<b>180 hours P</b>
2018 / 2019	<b>120 h L и 150 h. P</b>
2019 / 2020	<b>165 h L и 75 h. P</b>
Exams	<b>92,4 + 26,4 hours</b>

#### **Conclusion on Section 3:**

**The candidate has a sufficient teaching load, with a lasting tendency to increase**

**In CONCLUSION:**

Considering provided documents, I believe that *Nataliya Petrova Petrova, Ph.D.* meets the mandatory and specific requirements to be selected by the Scientific Jury to hold the academic position "ASSOCIATE PROFESSOR" in the Sofia University "St. Kliment Ohridski", according to the Regulations on the terms and conditions for acquiring scientific degrees and holding academic positions at Sofia University "St. Kliment Ohridski", chapter Three, p. 30, sections I.-IV. "Terms and conditions for taking the academic position "Associate Professor".

I recommend to the respected members of the Scientific Jury to vote for the award of an academic position "Associate Professor", professional field 7.4. Public health (Kinesitherapy) - for the needs of the Medical Faculty of Sofia University.

I endorse her candidacy with my positive vote.

02.12.2020

*Reviewer:*

Prof. Dr. Ivet Koleva, Ph.D., D.Med.Sc.  
*Medical University - Sofia*