

#### **OPINION**

for a competition for occupying the academic position "Associate Professor" in the field of higher education 7. Health and sports, professional field 7.1. Medicine and name of the scientific specialty Physiotherapy, Resortology and Rehabilitation of the University "Prof. Dr. Asen Zlatarov" – Burgas, according to an ad in the State Newspaper, issue 13 of 13.02.

2024 year

Candidate: Dr. Iliya Todorov Todorov, MD, PhD

Member of Scientific jury: prof. Dr. Hristo Bozov, MD, PhD

According to an order of the Rector of the University "Prof. Dr. Asen Zlatarov" – Burgas

No RD – 135/12.04.2024

### 1. Evaluation of the pedagogical training and activity of the candidate

He was born on September 29, 1976 in Varna, Bulgaria. In 1995 he graduated from the First Language School – Varna, English language class. He received higher education at the Medical University – Varna in the period 1995-2001 (diploma series MU Noo20634, minutes of the State Examination Committee No16 of 27 Sept 2001, registration No7205) Since October 2, 2000 Dr. Todorov has been enrolled as a full-time PhD student at the Clinic of Physiotherapy, Rehabilitation and Thalassotherapy at the Hospital in Sv. Marina - Varna

In 2002 Dr. Todorov started specializing in Physical and Rehabilitation Medicine at the Department of Physiotherapy, Rehabilitation, Thalassotherapy and Occupational Diseases at the St. Marina University Hospital - Varna.

On March 4, 2003 Dr. Todorov was appointed as an Assistant Physitian at the Clinic of Physiotherapy, Rehabilitation and Thalassotherapy at the Hospital in St. Marina – Varna. In December 2006 Dr. Todorov successfully passed the state exam in Physical and Rehabilitation Medicine and as of 01 January 2007 he is a full-fledged specialist (diploma series MUV No1496, registration No012077 of 31 January 2007).

Since March 12, 2007 he has been appointed Senior Assistant Physician at the Clinic of Physiotherapy, Rehabilitation and Thalassotherapy at the Hospital in Sv. Marina – Varna. Since April 12, 2011 he has been appointed as Chief Assistant Physitian at the Clinic of Physiotherapy, Rehabilitation and Thalassotherapy at the Hospital in Sv. Marina – Varna. On November 29, 2011 he successfully defended a dissertation on the topic: "Possibilities of some factors of physical therapy to influence functional disorders of the sacroiliac joint". He was awarded the educational and scientific degree "Doctor" in the scientific specialty Physiotherapy, Resortology and Rehabilitation (diploma No5 of 20 Feb 2012).

In the period 2015 to 2019, Dr. Todorov was Head of the Scientific sector "Thalassotherapy, Physiotherapy and Rehabilitation" at the Medical University – Varna.

Since 16 Feb 2015 he has been appointed to the academic position of "Associate Professor" at the Medical University – Varna. Since May 2015 he has been appointed Head of Physiotherapy and Rehabilitation Clinic at St. Marina Hospital – Varna. He remained in

these positions until December 2, 2019, when he left the Medical University – Varna and St. Marina Hospital – Varna.

Since January 2022, Dr. Todorov has been appointed Head of Physical and Rehabilitation Medicine Clinic at the Heart and Brain Hospital.

Dr. Todorov has been Chairman of the Bulgarian Society of Manual Medicine (BDMM) since 2022. From 2006 to 2022 he is a secretary of the same. Since 2007 he has been participating annually as a delegate of BDMM representing the Republic of Bulgaria at the International Assemblies of FIMM (Federation Internationale de Medicine Manuelle). As a secretary of BDMM he is the main organizer of the years 2008 and 2016 FIMM Assemblies in Varna, as well as at the annual meetings of the society with international guest lecturers held at St. Marina Hospital – Varna. The event in 2016 was attended by over 50 doctors from abroad. Over the years, at these meetings, guest lecturers have been world-renowned specialists in Manual Medicine such as Prof. von Heymann, Dr. Terrier, Prof. Kuchera and others. Since 2017 Dr. Todorov has been elected Vice President of FIMM and Chairman of the FIMM Educational Board, which positions he holds so far.

Dr. Todorov is a member of the Bulgarian Medical Association and the Bulgarian Association of Physical and Rehabilitation Medicine (AFRM). Since 2012 he has been appointed Coordinator for Northeastern Bulgaria of AFRM.

In the period 2009-2010 Dr. Todorov successfully completed courses I, Iland III of DGMM (German Society of Manual Medicine) in Hannover, Germany – lecturers and examinators Prof. von Heymann and Dr. Wittig.

In the period 2011-2012 Dr. Todorov successfully completed a course in Neural Therapy at the Medical University – Varna with a guest lecturer Dr. Pieller.

During the period 2013 - 2018 Dr. Todorov has participated as a guest lecturer in Courses in Manual Medicine in Istanbul and Ankara, Turkey.

Dr. Todorov has participated in a number of international congresses and assemblies in London, Prague, Berlin, Elche, Utrecht, Paris, Rome and Istanbul, as well as in the conferences and meetings of BDMM and AFRM in Bulgaria – Sofia, Ruse, Velingrad, Narechen, Pavel Banya, Pomorie, Dryanovo and others.

Dr. Todorov is an established international lecturer with training courses and seminars in Australia, South Korea, Thailand, Great Britain, Turkey, Czech Republic, Slovakia and others.

He is fluent in English, and at intermediate level – German and Russian.

# 2. General assessment of the applicant's research and applied activities.

For this competition Dr. Todorov presents 41 scientific papers, all full-text publications. He also has an abstract and monography related to dissertation, the latter not included in the submitted reference for participation in this competition.

Dr. Todorov is the first author in 12 publications (29%), second – in 16 publications (39%). On 2 of the publications is the only author.

In total, the current scientific output of Dr. Todorov is 47 articles with a total volume of 321 pages.

Since 2010 the candidate is an expert in the clinical study of Bayer SPINART, elected member of the Steering Committee. The results of the survey are currently a company secret.

## 3. Characteristics and contributions of scientific publications

Dr. Todorov's scientific publications cover the fields of Manual medicine, electric therapy, disc disease, balneotherapy, post-stroke rehabilitation, plexus brachialis pathology, Parkinson's disease, high-energy lasers, etc.

The main scientific activity of Dr. Todorov is in the field of Manual Medicine, with which most of his postgraduate courses and specializations are related. He has worked intensively in the field of manual diagnostics and therapy of functional disorders of the sacroiliac joints, all regions of the spine and some muscles with frequent preexposure – m. piriformis, m. iliopsoas.

Functional pathology of sacroiliac joints (SIJ) is one of the poorly studied areas in Bulgarian science. It is here that Dr. Todorov has concentrated to the greatest extent, as 7 of the publications concern precisely these joints, and 2 of them are entirely personal. A contribution on a national scale is the introduced as a method of verification to affect the function of SIS non-contact skin thermometry. Relying on known neurophysiological phenomena, Dr. Todorov has practically found an active methodology for proving the effect of manual manipulations, i.e. functional normalization of local blood circulation. Using modern statistical methods for systematization of the results obtained, the mentioned methodology is completely proven from a scientific point of view and can be recommended for application as a method of verification in other scientific developments. A good impression is made by the scientific collaboration with a foreign specialist in the face of Dr. Christian Mucha – lecturer at the German Higher Sports School – Cologne, Germany. With this colleague Dr. Todorov has 4 joint publications, which is an example of a long-term cooperation and good teamwork. Each of the four publications concerns a different topical pathology, the results obtained and their conclusions being scientific contributions

## Contributions of an original nature

For the first time in Bulgaria are published:

- scientific research proving as an effective verification method the non-contact infrared skin thermometry for patents with functional pathology of SIJ;
- data proving the good effect on Parkinson's disease from decimeter wave therapy;
- for the first time in Bulgaria, a division of manual diagnostic tests for SIJ into specific and non-specific has been carried out, and the final correlation of such a division with the established results has been proven;
- data on plantar pressure distribution in patients with lumbar root compression syndromes;
- data on the effectiveness and clinical reliability of the Rosina test used in 2 scientific researches;
- data from a scientific study establishing FES as an integral part of rehabilitation after reconstructive operations in connection with anteromedial knee instability

## For the first time in Bulgaria have been studied:

- the influence of local cryotherapy on the lower leg muscle and skin blood circulation;
- the application of manual therapy and PIR in cases with piriformis muscle syndrome;

- the application of manual therapy and PIR in cases with illiopsoas muscle syndrome;
- the effect of the application of geothermal water from spring R-119X in Varna in patients with frequent degenerative joint diseases
- he effectiveness of the combined application of high-energy laser and manual therapy in functional disorders of the thoracic region.

## Scientifically applied contributions:

- development and validation of a diagnostic approach to identify dysfunctions of the sacroiliac joint
- introduction of the modified Rankine scale as a method for assessing functional recovery in post-stroke hemipareses.
- development and validation of specific protocols for working with a high-energy laser in cases of peritendinitis of the glenohumeral joint and functional disorders in the thoracic vertebral segment.

## 4. Significance of contributions to science and practice

The above facts are proof of the scientific contributions of Dr. Todorov's scientific work. Particularly prominent are the developments in the field of Manual Medicine, as well as his teamwork with foreign and Bulgarian specialists in the fields of electrotherapy, disc disease, postoperative rehabilitation, Parkinson's disease, high-energy lasers, etc. These contributions meet the requirements for occupying the academic position of "Associate Professor".

### 5. Evaluation of diagnostic and therapeutic activity

Dr. Todorov is Head of Physical Medicine and Rehabilitation Clinic at the Heart and Brain Hospital, participates in teams with colleagues from other universities and hospitals, as well as with specialists from other disciplines such as neurologists, vascular surgeons, orthopedists, etc. As a doctor – head of clinic, conducts visitations and consults and adjusts the treatment plans of patients lying in the hospital.

#### 6. Evaluation of teaching activities

Dr. Todorov has conducted lecture and practical training in Physical and Rehabilitation Medicine to students of Medicine IV year, nurses, midwives and rehabilitators at the Medical University – Varna in the period 2007 – 2019. He has conducted training in English for foreign students studying at the Medical University of Varna, prepared curricula and tests in English. He has actively participated in examination committees of all kinds – semester exams, for specialization, for doctoral studies, corrections. Dr. Todorov is the main author of the Master's degree programme "Rehabilitation, Thalassotherapy, Wellness and SPA", for which the Medical University of Varna was awarded international award and the mentioned program continues to be one of the most successful for Varna University at present.

#### Conclusion:

In view of the above facts, I support the award to Dr. Iliya Todorov Todorov of the academic position "Associate Professor" in the professional field of Medicine, in the scientific

specialty "Physiotherapy, Resortology and Rehabilitation" at the University "Prof. Dr. Asen Zlatarov" – Burgas.

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Burgas 22 May 2024 Member of the Scientific jury:

/Prof. Dr. H. Bozov, MD, PhD/