

To the Chairman of the Scientific Council,  
Acibadem City Clinic Tokuda Hospital, Sofia

## **REVIEW**

by Prof. Dr. Plamen Kinov, MD, DSc

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Appointed by Order №318 of 23.06.2021. of the Executive Director and the Procurator of Acibadem City Clinic Tokuda Hospital EAD - Sofia, for an external member of the scientific jury

### **Subject:**

Competition for the academic position "Professor" in the professional field 7.1. Medicine, (Orthopedics and Traumatology), announced in SG No. 33 of 20.04.2021. The only candidate participating in the competition is Assoc. Prof. Dr. Vasil Tsankov Yablanski, Ph.D. from the Clinic of Orthopedics and Traumatology of Acibadem City Clinic UMHAT Tokuda EAD.

Professional field 7.1. Medicine,

Field of higher education 7. Health and sports

### **Biographical data:**

Assoc. Prof. Dr. Vasil Tsankov Yablanski was born in 1970 in the town of Byala Slatina. He completed his secondary education in Stara Zagora and in 1996 graduated in medicine at the Medical Faculty of the Thracian University, Stara Zagora. After graduation he was enrolled as a full-time specialist at the Clinic of Orthopedics and Traumatology at the University Hospital at the Medical Faculty of the Thracian University in Stara Zagora and in 2001 acquired a degree in orthopedics and traumatology. After acquiring the specialty he continued working in the same clinic until 2004, after which he started working in the clinic of orthopedics and traumatology at the University Hospital "Queen Joanna - ISUL", Sofia. Since 2006 he has been the Head of the Department of Orthopedics and Traumatology at Tokuda Hospital Sofia.

In 2014 he defended a dissertation on "The possibilities of arthroscopy of the hip joint for diagnosis and determination of stages in osteonecrosis of the femoral head" at the Department of Orthopedics and Traumatology at the Medical University, Sofia, and obtained a doctorate in medicine.

In 2016, after a competition, he held the academic position of "Associate Professor" at the Clinic of Orthopedics and Traumatology at Tokuda Hospital, Sofia.

Assoc. Prof. Vasil Yablanski is a member of the Bulgarian Orthopedic and Traumatological Association (BOTA), the Bulgarian Medical Association (BMA), the European Federation of National Associations of Orthopedics and Traumatology (EFORT), the American Academy of Orthopedic Surgeons (AAOS Association), (BASH) and others.

Head of specialization courses for doctors from Macedonia at Tokuda Hospital Sofia, as well as specialists and doctoral students in the same hospital. He was invited as a lecturer and faculty member in international courses such as "Surgical treatment of spinal deformities", including theoretical and practical skills for doctors from Europe and Asia, held in 2015 in Vienna, Austria, "Large joint endoprosthesis" at the University Hospital, Astana, Kazakhstan and Recon JSC on "Complex cases of hip and knee arthroplasty", Sofia, Bulgaria.

For the last three years he has been lecturing in English and exams to foreign students in the specialty "Orthopedics and Traumatology" at the Medical Faculty of the Thracian University.

Assoc. Prof. Yablanski holds master's degrees in health management from SWU, Blagoevgrad, and in public health from Hibru University, Israel.

The total number of scientific papers of Assoc. Prof. Vasil Yablanski is 62, of which 23 are in scientific journals in Bulgaria and 18 - in international scientific journals. 8 of the publications abroad are in magazines with impact factor. Participations in scientific forums are 17, of which 7 are in international forums. Of the presented total number of publications, 23 are after acquiring the academic position of "Associate Professor", including one independent monograph, two chapters in textbooks and monographs, 14 real publications in scientific journals (4 of them in international journals, 2 of them with impact factor) and 6 participations in scientific forums (4 of which are international).

## 1. The scientific papers are distributed as follows:

By types:

Types of scientific works	In Bulgaria	International	Total
1. Dissertation work	1		1
2. Monograph	1		1
3. Chapters in textbooks and monographs	2		2
4. Scientific publications	23	18 (8 c IF)	41
5. Participation in scientific forums	10	7	17
<b>Total:</b>	<b>37</b>	<b>25</b>	<b>62</b>

By place of the candidate in the author teams:

Place as an author	Real publications	
	number	%
Independent author	11	18
First author	12	19
Second author	28	45
Third and subsequent author	11	18
<b>Total:</b>	<b>62</b>	<b>100</b>

## 2. Directions in scientific publications:

1. *Introduction and development of the surgical technique of arthroscopy in the area of the hip joint (1, 3-5, 9, 11, 28).*

For the first time in Bulgaria a series of patients with arthroscopy of the hip joint was presented. Studies have shown that hip arthroscopy is a safe method for assessing intra-articular structures and can be performed without significant complications for patients. The surgical technique is described in detail, as well as the necessary equipment for arthroscopy of the hip joint. The exact stage of the disease in patients with osteonecrosis of the femoral head has been specified as a fundamental factor for the success in the choice of organ-preserving techniques (1, 4, 9, 11, 28). Three of the most widely used classification systems in practice have been studied for their ability to detect intra-articular changes and for the stability of their results.

The understanding of the pathomorphological changes occurring in osteonecrosis of the femoral head has been improved and an own classification system has been created for their determination. The presented results contribute to a detailed follow-up of the stages through which the damaged bone passes. On this basis, an own algorithm has been developed for the selection of surgical techniques for organ-sparing operations in patients with osteonecrosis of the femoral head (1, 4, 9, 11, 28).

2. *Treatment of patients with spinal deformities in childhood (2, 12, 14-19, 22-25, 30-42, 43-46, 48-52, 54, 56-62).*

Thanks to a long-term program of cooperation with the Scoliosis Research Society (SRS) for the first time in Bulgaria was introduced "free hand" technique for placement of pedicular screws as part of posterior instrumentation in children with severe spinal deformities of various natures. The advantages of this technique are indisputable and are expressed in the lack of X-ray exposure on the patient and the team during the intervention, reduced surgical time, reduced blood loss, reduced risk of early infectious complications and more.

A number of osteotomy techniques have been introduced and used in the area of the spine with excellent results in over 250 children. Specialization training of doctors from different countries was conducted, and the author was invited as a lecturer and faculty to international courses in different countries.

These papers present excellent results from surgical treatment of children with neuromuscular scoliosis, neurofibromatosis, and others. Results of challenging single-stage anterior transthoracic and posterior accesses, combined with radical osteotomies of the spine such as pedicular subtraction, total posterior corpectomy, etc., are also presented.

**These techniques are a challenge for any team worldwide and are performed only in highly specialized centers for the treatment of children with spinal deformities.**

The treatment of children with spinal deformities and rare diseases is a routine practice in the work of the clinic. The clinic is the only center for treatment of such patients in Bulgaria.

**Introduction of intraoperative neuromonitoring in surgical treatment of scoliosis in childhood.**

Intraoperative multimodal neuromonitoring was introduced for the first time in Bulgaria in the surgical treatment of children with spinal deformities. This method significantly reduces the risks of neurological complications, surgical time and blood loss, as well as reduces the use of intraoperative

radiographic control. It is for these reasons that the use of this method is absolutely mandatory in the type of surgery for spinal deformities.

**Together with a genetic laboratory** a number of studies were performed on the basis of blood tests of operated patients and comparisons with healthy volunteers to detect polymorphic dependencies associated with the manifestation and progression of the disease. Dependencies of polymorphic genes and their impact on the risk of occurrence and development of scoliosis among Bulgarian patients have been studied. The results are presented and published in some of the world's leading scientific journals and contribute to clarifying the problem.

In the practice of the clinic a mandatory examination of the respiratory function in children with severe forms of scoliosis has been introduced before and after surgical treatment in order to assess the impact of the correction. It started on a research project with MU Sofia, long-term monitoring of the results. Spinal deformities in children also damage other organs and systems, which are often underestimated.

For the first time in Bulgaria the use of magnetically controlled growing rods has been introduced and approved, which allow remote distraction and thus can save children with similar disease up to more than 10 surgical interventions, while achieving excellent correction of the deformity.

**Three-dimensional printing of the deformed spine of children** with similar deformations has been introduced in practice. The result is indisputable and results in better osteotomy planning, shorter surgical time, due to better orientation of the surgeon, less blood loss and better correction.

### **3. Contributions to scientific publications:**

The thematic areas and contributions reflected in the scientific papers are in the field of orthopedic surgery and can be grouped as follows:

1. Introduction and development of the surgical technique of arthroscopy in the area of the hip joint.
2. Clarification of determining the stage of the disease in patients with osteonecrosis of the femoral head, as a fundamental factor for success in choosing organ-preserving techniques.
3. Creation of an author's algorithm for selection of surgical technique in organ-preserving operations of patients with osteonecrosis of the femoral head.
4. Improving the surgical technique and complex approaches in the treatment of patients with spinal deformities in childhood: surgical treatment of scoliosis in childhood in children with

rare diseases and high-risk interventions; introduction and validation in practice of new techniques in the treatment of early scoliosis.

5. Introduction of intraoperative neuromonitoring in surgical treatment of scoliosis in childhood.
6. Research and analysis of possible causes of idiopathic scoliosis in children with advanced deformities.
7. Analysis of the influence of correction of spinal deformities on the function of other organs and systems.
8. Development of the treatment of idiopathic scoliosis with the methods of kinesitherapy and their combination with dynamic implants, allowing active distraction with exercises.

#### **4. Citation:**

The candidate has provided data on 72 citations of his publications, of which 28 are in Bulgaria and 44 abroad, reflected in the NACID database and a reference from the Central Medical Library. The impact factor is 13,797.

#### **5. Teaching activity:**

Associate Professor Vasil Yablanski has 5 years of teaching practice. From the presented reference for the study workload of the candidate for the last 5 years, the Classroom employment 18 hours - training of students at Sofia University Kliment Ohridski for the period 2019-2021; 30 hours of annual workload of English language teaching (lectures and examination commissions) at the Thracian University, Stara Zagora and 1856 hours of study employment with specialists at Tokuda Hospital.

#### **6. Conformity of the scientific production of the candidate with the Minimum National Requirements for Professor of Medicine:**

The reference for the fulfillment of the minimum national requirements under art. 2b of *ADASRB* for scientific field 7. Healthcare and sports, professional field 7.1. Medicine shows full compliance and fulfillment of these requirements, namely - Indicators of group A - 50 points, Indicators of group B - 100 points, Indicators of group D - 214 points / required number of points according to the minimum national requirements - 200 /, Indicators from group D - 100 points / required number

of points, according to the minimum national requirements - 100 /, Indicators from group E - 200 points / required number of points, according to the minimum national requirements - 100 /.

**Conclusion:**

Associate Professor Dr. Vasil Yablanski, participating in the competition for Professor of 7.1. Medicine, Orthopedics and Traumatology, is a highly qualified specialist, built by many years of practice in 2 university clinics and realized scientific products meeting the minimum requirements of the law and the regulations for its application to hold this academic position.

The candidate fully meets the qualitative and quantitative criteria set in the Law for the development of the academic staff in the Republic of Bulgaria and the requirements for obtaining the scientific degree "Professor" of the Regulations for the development of the academic staff of Acibadem City Clinic Tokuda Hospital. Therefore, I give a positive assessment and call on members of the Scientific Jury to award Assoc. Prof. Dr. Vasil Tsankov Yablanski the scientific degree "Professor" in the scientific specialty "Orthopedics and Traumatology".

08.08.2021

Prof. Dr. Plamen Kinov, MD, DSc

Sofia