

**EXPERT REVIEW**  
**Professor Alexander Petrov Tcherveniakov, MD**  
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Member of the Scientific Jury, appointed by Order № RD-26-2481/13.10.2021 of the Executive Director of UMHATEM "N.I. Pirogov"

Subject: Competition for the academic position of "professor" in the field of higher education 7.

Healthcare and sports in Professional field 7.1 Medicine and scientific specialty "Pediatric Surgery", announced in SG, issue 61 of 23.07.2021. The only candidate is Assoc. Prof. Dr. Hristo Ivanov Shivachev, MD.

**Biographical data:**

Assoc. Prof. Dr. Hristo Shivachev, MD is born on September 8, 1969. He graduated in medicine in 1995 at the Medical University of Sofia. He started working in 26 polyclinics in Sofia as a therapist on duty. In 1997 was appointed as an intern at the Department of Pediatric Thoracic Surgery, Second Pediatric Surgical Clinic, Department of Pediatric Surgery, "N.I. PIROGOV". Gradually he passes all levels of development, from resident to Head of Clinic. In 2011 defends the scientific degree "Doctor" in Pediatric Surgery. The following year he was awarded the academic position of Associate Professor. Since 2014 he has been the Head of the Department of Pediatric Thoracic Surgery, and since year 2017 until now he is the Head of the Pediatric Surgery Clinic.

**Professional qualifications:**

Dr. Hristo Shivachev acquired specialty in "Surgery" - 2004, specialty in "Paediatric Surgery" - in 2012, and currently a specialty in "Thoracic Surgery" (2021). Additional qualifications: Video-thoracoscopic surgery, Laparoscopic surgery, Bronchology 1 and 2 level, Conventional gastrointestinal endoscopy 1 level. He has completed specialization courses in Vienna, Naples, and Genoa.

**Academic and scientific activity:**

The scientometric indicators of Assoc. Prof. Dr. Hristo Shivachev are in accordance with the requirements adopted by the Scientific Council of UMHATEM "N.I. Pirogov" EAD - Sofia and reflected in (Appendix 1) of the Regulations for the development of the academic staff.

**Evaluation of the research activity:**

The author presents one monograph and 50 publications which are distributed as follows:

- 20 articles in journals, referenced in world databases Scopus and Web of Science; published as follows:

Pediatric Pulmonology – 3; *European Journal of Pediatric Surgery*; Akush Ginekol (Sofia); Problems of infectious and parasitic diseases - 2; „Rentgenologia I radiologia “; Pediatriya – 2 ; *European Respiratory Journal*; *Journal of Cardiothoracic Surgery* - 2; *Acta Medica Bulgarica*; *Children*; *Biomedical Journal of Scientific and Technical Research*; *European journal of neurology*; *American Journal of Biomedical Science* Research; *Infection and immunity*.

- 30 articles published in journals referred to in the National Reference List; mostly in journal “Emergency medicine (Speshna medicina)” and “Nauka Pulmologia”

Assoc. Prof. Dr. Hristo Shivachev contributed with 86 reports in scientific forums;

Table 1: Distribution by author's place

Publications			Scientific reports		Total	
	number	%	number	%	number	%
<i>Independent</i>			<b>6</b>		<b>6</b>	
<i>First author</i>	<b>9</b>		<b>22</b>		<b>30</b>	
<i>Second author</i>	<b>19</b>		<b>28</b>		<b>47</b>	
<i>Third and subsequent author</i>	<b>22</b>		<b>30</b>		<b>49</b>	
<b>Total</b>	<b>50</b>	<b>100</b>	<b>86</b>	<b>100</b>	<b>136</b>	<b>100</b>

The monographic work is on the topic “DIAGNOSIS AND TREATMENT OF PARAPNEUMONIC PLEURO-PULMONAL COMPLICATIONS IN CHILDHOOD”. It is written on 186 pages and studies the etiology and pathogenesis of community-acquired pneumonia complications in childhood. The Author introduces the minimally invasive surgical techniques and interventional bronchoscopy in the parapneumonic complications management. An algorithm for diagnosis and treatment of the pulmonary and pleural complications is developed. The data in the work show diminishing of needs in pulmonary resections by 8%, reduction of the number of surgical procedures, shortening of hospital stay and faster recovery of the patient.

The presented scientific works are cited in Scopus database journals 15 times and 30 times in Bulgarian periodic journals.

The volume and quality of the presented scientific production corresponds to the terms of the competition. It exceeds the requirements in both the National Minimum Criteria and those adopted by the Scientific Council of the Hospital as follows:

Table 2: Indicators for fulfillment of the required criteria

Group of indicators	Content	Professor	Professor	Professor
		Required	Available	Available
		According to the minimum national requirements	According to the minimum national requirements	According to the requirements of UMHATEM,,N.I.Pirogov”

A	Indicator 1	50	<b>50</b>	<b>50</b>
Б	Indicator 2	-	-	-
B	Sum of indicators 2, 3 and 4	100	<b>100</b>	<b>100</b>
Г	Sum of indicators from 5 to 9	200	<b>364,35</b>	<b>1500</b>
Д	Sum of indicators from 10 to 12	100	<b>525</b>	<b>525</b>
E	Sum of indicators from 13 to the end	100	<b>500</b>	<b>500</b>
Ж	Indicator 23	10		
	or IF	>10	<b>33.3</b>	<b>33.3</b>

**Teaching activity:**

Assoc. Prof. Dr. Hristo Shivachev, presents a report on teaching employment, which shows that for the last three years there are over 100 teaching hours (lectures, exercises with students and graduates), works as an examiner, including as chairman of the commission for state exam in the specialty "Pediatric Surgery". He was elected Deputy Editor-in-Chief of "Emergency medicine (Speshna medicina)" journal. Under his supervision, two doctoral students successfully defended their doctoral dissertations, and one

was expelled with the right to defend. He is the research supervisor of three other enrolled doctoral students.

I define as main scientific and practical contributions of Assoc. Prof. Hristo Shivachev as follows:

1. Defining the terms of surgical treatment for Congenital Pulmonary Adenomatoid Malformations and for the Congenital lobar emphysema;
2. Introduces the minimally invasive thoracoscopic treatment of congenital pleural bullae complicated by spontaneous pneumothorax and parapneumonic pleural complications in children;
3. Introduces in Bulgaria interventional bronchoscopy in the postoperative bronchopleural fistulas in childhood and endoscopic treatment of congenital and acquired strictures of the trachea and bronchi;
4. Introduces a protocol for prenatal diagnosis, fetal surgery, preparation and surgical treatment of the congenital diaphragmatic diseases;
5. Introduces the minimally invasive Nuss technique in children with pectus excavatum;
6. Introduces an algorithm in the management of corrosive oesophageal lesions and gastro-oesophageal reflux disease;
7. Introduces the video-assisted thoracoscopic surgery of tumours and cysts of the mediastinum;
8. Introduces laparoscopic surgical technique and offers an algorithm for management of the acute appendicitis and peritonitis and in the diagnosis and surgical manipulation of the abdominal non-palpable testis;
9. Develops and introduces a protocol for management and staging of abdominal tumours in childhood and determination of treatment tactics with minimally invasive methods.

Conclusion:

The research, teaching and diagnostic activities of Assoc. Prof. Dr. Hristo Shivachev are completely sufficient and cover the scientometric criteria and quantitative indicators, and meet the requirements of the Regulations for the development of the academic staff at UMHATEM "N. I. Pirogov".

In conclusion, Assoc. Prof. Hristo Shivachev is a researcher with good teaching and management experience, and a doctor with great professionalism and social activity. This gives me reason and inner conviction to vote positively and to invite the members of the respected scientific jury to vote positively for awarding of the academic position "Professor" to Assoc. Prof. Hristo Shivachev.

Date: November 9<sup>th</sup>, 2021

Sofia

Prof. Alexander Tcherveniakov, MD

Signature:.....

