

REVIEW
from
Prof. Dr. Krasimir Dimitrov Ivanov, MD, PhD, DSc

Department of General and Operative Surgery, Medical University - Varna, Faculty of Medicine,
Medical University-Varna, habilitated in Professional area 7.1. Medicine, Medical University -
Varna, member of the Scientific Jury of a competition for the awarding the academic title
"Professor" for the specialty "Ear, Nose and Throat Diseases", announced in State Gazette
59/26.07.2022.

Subject:

Competition for awarding the academic title "Professor" in Higher education area 7. Health care and sports, Professional domain 7.1. Medicine, Specialty „Ear-nose-throat diseases“, announced in State Gazette 59/26.07.2022

Candidate: Assoc. prof. Dr. Nikolay Roumenov Sapundzhiev, MD

I. Brief details of the candidate's career and biographical profile:

Assoc. prof. Nikolay Roumenov Sapundzhiev was born on 21.09.1972 in the city of Varna, People's Republic of Bulgaria. In the 1991 he graduated from the 1st English language school "Chr. Kabakchiev", Varna with distinction and a gold medal. In 1996, he completed qualification course in the specialty "Translation and processing of scientific information" at the Faculty of Law of the Technical University - Varna. In 1997, he graduated as a master's doctor from the Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" – Varna, being one of the class topper students. From 2002 to 2004, he was a full-time doctoral student under the supervision of Prof. J.A. Werner at the Department of Otorhinolaryngology and Head and Neck Surgery of Philipps University of Marburg, Germany. In 2003 he obtained his specialty in Otorhinolaryngology. In 2005, he defended his doctorate on the topic "Incidence of lymph node metastases after piecemeal laser-surgical and en block cold steel resection of auricular VX2 carcinoma. A comparative study." at the same university and was awarded *magna cum laude*. His educational and scientific degree "Doctor" in the scientific specialty "Otorhinolaryngology", code 03.01.35 was confirmed by Higher Attestation Commission (VAK) in February 2006. In 2011, he completed training in "Health Management" at the University of Varna and graduated as a Master ". In 2019 Assoc. prof. N. Sapundzhiev completed two-year degree in Specialization Course in the Sciences of the Voice, Speech and Singing at the Institute of Interdisciplinary Research

of the Universidade de Coimbra, Portugal. Over the years, he has conducted numerous long- and short-term specializations in the following otorhinolaryngology clinics: Hopital Saint-Antoine, Paris, France, Universitätsklinikum Benjamin Franklin, Berlin, Germany, Philipps Universität, Marburg, Germany, Johannes Gutenberg – Universität, Mainz, Germany, Bad Lippspringe, Germany, Heilbronn, Germany.

In the period 1997-1998, he was a resident doctor at the ENT Clinic of the Medical University of Varna (then based in the MBAL St. Anna). 2004-2005 he was a resident doctor at UMBAL Tsaritsa Ioanna, Sofia. Since 2006, he was appointed assistant professor at the University of Varna (Department of Neurosurgery, ENT and Ophthalmology). In 2008 he was appointed senior assistant professor in the newly established Department of Neurosurgery and ENT Diseases. In 2013, he completed his habilitation and was appointed the position of Associate Professor in the same department. Since 2014, he has been the head of the Department of ENT Diseases at the Department of Neurosurgery and ENT Diseases of the Medical University of Varna.

For the period 2014-2019 he initiated and led a successfully completed project under the "Science" Fund 14020/2014 "Study of anatomical characteristics of the larynx in newborns and toddlers in normal and pathological conditions with endoscopic methods."

Author of many scientific publications, participant in international symposia as an invited speaker.

He is member of the editorial board and/or reviewer of international scientific journals. He has a utility model registration.

Assoc. prof. Nikolay Sapundzhiev is a Member of international scientific and professional organizations in the field of otorhinolaryngology, head and neck surgery, phoniatics, plastic surgery, somnology, etc.

He has excellent command of English, German, Russian and French both written and spoken.

He is married with three children.

II. Overall evaluation of the materials, handed in for the competition:

The review of the materials demonstrates, that the procedure for disclosure, announcement and participation in the competition has been fully followed. The documents for the competition have been prepared in accordance with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for its implementation in Medical university - Varna.

III. Evaluation of the research activity. Characteristics of publication activity and scientific production:

In the attached Academic reference for publications, citations, monographs, scientific profiles of the candidate for the appointment of the Academic position "Professor" - Assoc. prof.

Dr. N. Sapundzhiev MD has included:

1. Dissertation work for the acquisition of the educational and scientific degree "Doctor" on the topic: „ Incidence of lymph node metastases after piecemeal laser-surgical and en block cold steel resection of auricular VX2 carcinoma“, 2005 Philipps Universität, Marburg, Germany (Indicator A1)
2. Full-text publications, equivalent to a habilitation thesis in journals that are referenced and indexed in world-renowned databases with scientific information - 10 (Indicator B4)
3. Publications and reports published in scientific journals, referenced and indexed in world-renowned databases with scientific information - 9 (Indicator D7)
4. Publications and reports published in non-referenced journals with scientific review or published in edited collective volumes – 9 (Indicator D8)
5. Participation in a published collective university textbook or texbook - 1 (Indicator E20)
6. Participation in a published university textbook aid - 1. (Indicator E21)

The required overall number of points from the publications is fulfilled by the candidate. Assoc. prof. Sapundzhiev has submitted 12 citations for the competition with a total number of 180 points (Indicators D10-D12). The citing articles are published only in international journals. This contributes to the greater visibility among scientific circles of the scientific output of the Medical University - Varna.

Assoc. prof. Sapundzhiev initiated and successfully accomplished a Science Fund project: 14020/2014 entitled "Study of anatomical characteristics of the larynx in newborns and toddlers in normal and pathological conditions with endoscopic methods". The project resulted in successful PhD candidate, three full-text publications and 6 participations in scientific forums, and the development of an original utility model.

To the documents submitted, the candidate has attached a list of participations in Bulgarian and international scientific forums with lectures, oral presentations and posters. Their number for the period 2014-2022 is 79.

Assoc. prof. Sapundzhiev has prepared a report on the contributions of his scientific works, in which they are described in greater details and in depth and ranged by several criteria - language of publication, type of publication, authorship, fields and topics. It should be noted that eleven of these publications are educational projects developed with the aim of training students and young specialists to work with references, pre-available clinical material on the research topic all set by the senior researcher.

The main directions of the research work and the resulting publication activity are related to the theoretical, applied and clinical aspects of otorhinolaryngology, its subspecialties, head and neck oncology, pediatric otorhinolaryngology, a set of socially significant and casuistic otorhinolaryngological diseases, some historical aspects of the specialty, as well as some current issues and news related to COVID. There is both continuity in terms of the thematic orientation of the studies during this ten-year period after the first habilitation, as well as a significant enrichment and diversification of the studied issues and the emergence of new, problem-oriented interdisciplinary scientific subfields.

In Direction 1: Presented are the results of an extensive institution-wide cohort study of patients with head and neck carcinoma. The results depict valuable statistical information about the demographics of patients with oncological diseases of the head and neck organs in our country. The main focus in the studies of Assoc. prof. Sapundzhiev is laryngology. The role of smoking in the etiology of laryngeal carcinoma in the Bulgarian population is analyzed. A detailed analysis of a rare clinical case of radiation-induced low grade fibromyxoid laryngeal sarcoma is presented. An original surgical technique with potential for endoscopic correction of pharyngocutaneous fistula after laryngectomy is presented. The originality of this project is confirmed by currently 6 citations in English, all of them in a positive aspect. An original surgical technique for tracheoesophageal puncture is presented with the potential to reduce operative trauma in at-risk patients after radiotherapy and with complex anatomy.

In Direction 2: Pediatric otorhinolaryngology

An extensive review and a summary of our own clinical experience in children with chronic laryngeal stridor are presented. Laryngoscopy findings in infants with specific neurodegenerative diseases have been described. Long-term results of up-to-date medical treatment of subglottic hemangioma in infants are presented. Extensive developments in the field of sleep-disordered breathing in the pediatric population are presented. The spectrum of clinical experience analyzed in the publications of Assoc. prof. N. Sapundzhiev is broad - from prophylactic measures for viral infections of upper airways to surgical treatment of rare laryngeal conditions in the neonatological period. In this direction Assoc. prof. Sapundzhiev was the supervisor of two successfully completed doctoral students.

In Direction 3: Epidemiology of specific otorhinolaryngological conditions and diseases

The publications presented in this direction are focused on evaluation of the frequency of some specific otorhinolaryngological conditions and diseases in our country. The data allow comparison with similar studies from other geographical regions. Of interest is a study on the vomeronasal organ showing the frequency of the condition in our population. Own clinical experience with Rendu-Weber-Osler disease is reported together with an analysis of otorhinolaryngological and systemic manifestations. Two studies analyze congenital and acquired changes of the auricle in childhood and their frequency among Bulgarian children.

In Direction 4: Innovative surgical techniques and technologies in otorhinolaryngology

Developments from the ENT Clinic of UMBAL "St. Marina" are presented, which, in addition to innovation, show to some extent maturity based on an adequate number of tracked cases. These include techniques for tracheoesophageal puncture, endoscopic autologous fat grafting for pharyngocutaneous fistula after laryngectomy and for arytenoid chordectomy with extended intralaryngeal stenting in patients with bilateral vocal cord paralysis. The technical characteristics of various classic and modern surgical devices, endoscopic techniques, incl. robotic surgery and their relationship to postoperative outcome and potential complications are analyzed. An original method for standardized quantitative endoscopic examination of the larynx is presented, based on which a useful model of a modified laryngological instrument was developed and registered.

In Direction 5: Case studies in otorhinolaryngology

The publication of clinical cases and rare diseases and clinical cases does not bring much impact. Nevertheless, they are important from a didactic point of view. Clinical cases can present best clinical practice, explore and analyze important common as well as uncommon clinical scenarios, and promote the use of clinical guidelines and systematic reviews. In the publications of Assoc. prof. N. Sapundzhiev analyzed are rare conditions such as atypical neoplasms of the larynx, severe iatrogenic transformations of the nasal mucosa, which go beyond the standard classifications, anatomical variants of the main neck vessels that can endanger even the most routine tonsillar surgery, atypical endogenous obstructive pathology of the tracheobronchial tree in childhood, granulomatosis with polyangiitis with unusual first pathognomonic presentation from the side of the trachea, a benign tumor of the esophagus.

In Direction 6: Historical aspects of the specialty

In this direction, developments related to the history of otorhinolaryngology, the origin of eponyms, correlations between current scientific concepts and historical settings are presented, including the reflection of individual pathologies and conditions in art.

In Direction 7: Current COVID-related issues and news

The first description of histological findings from the olfactory bulbs and frontal lobes of patients deceased from SARS-CoV2 infection is presented. These changes are correlated with histopathological changes in other organs.

Assoc. prof. N. Sapundzhiev has active scientific profiles in [ORCID](#), [ResearchGate](#) and [Google Scholar](#).

An IF-reference is also presented.

IV. Evaluation of teaching activity:

From the provided Certificate of teaching experience, it can be seen that the candidate for the competition has worked at the Medical University - Varna since 2006. He has consistently held academic positions over the years of an assistant professor (2006-2007), senior assistant professor (2007-2013), associate professor (since 2013). The total teaching experience at the time of the competition is 16 years.

Assoc. prof. N. Sapundzhiev is a respected and experienced university professor who brought experience from the German and French academic schools to the Medical University - Varna. He teaches otorhinolaryngology to students of medicine and dentistry Bulgarian and English language training at the Faculty of Medicine, nurses, midwives and speech therapists at the Faculty of public health, as well as phoniatics to speech therapists at the Faculty of public health. Assoc. prof. N. Sapundzhiev is the first professor in otorhinolaryngology of the English language training program (AEO) for medical students at MU-Varna. In 2011, for the first time, he taught the complete cycle of lectures and conducted all practical exercises for the first fourth-year students from the English language training program at MU-Varna. At that time the training was on a modular basis - a new experimental form for our university. Assoc. prof. Sapundzhiev

has developed the current versions of the curricula in otorhinolaryngology for medical students, students in dentistry, nurses, midwives and speech therapists. He has led the full cycle of lectures in all these programs, currently delegating some of these responsibilities to younger colleagues with academic ambitions. He introduces in all of them the test examination form, aiming at competitiveness and objective comparability of the results of the individual students. Of course the classic methods of examination - the oral examination and long essay questions are applied in parallel.

Assoc. prof. N. Sapundzhiev is the author of the study program in phoniatics for students of speech therapists at Faculty of public health. Since 2017, he has been the first teacher and lecturer in this completely new discipline at MU-Varna. He is an examiner in the listed disciplines.

Assoc. prof. N. Sapundzhiev actively works with the students on additional projects. Such projects have been presented at numerous student conferences, specialized national and international conferences. In 2011, one such development was awarded as the best presentation in the 3rd Scientific Conference in Otorhinolaryngology for Students and Young Scientists at MU-Stara Zagora. In 2014 students under the mentoring by Assoc. prof. Sapundzhiev participated in an renowned international forum on otorhinolaryngology (85. Jahresversammlung der Deutschen Gesellschaft für Hals-Nasen-Ohrenheilkunde, Kopf- und Halschirurgie, Dortmund), and the students were invited and supported by a grant from the German ENT-society. In 2016 student scientific project from MU-Varna under the mentorship of Assoc. prof. Sapundzhiev has been published in a leading international journal in the specialty. During the years Assoc. prof. Sapundzhiev accomplished over 40 projects with students and specialists, which were presented at scientific forums or as full-text publications. He plays an important active role for motivating and promoting the students' research work. On his initiative and with his financial support in 2017, an annual academic award named after Dr. Nikola Sirakov was established at the Medical university - Varna for the graduate student of Varna Medical University with the best achievements during his studies in the field of science.

Assoc. prof. N. Sapundzhiev conducts training of specialists in otorhinolaryngology, as well as postgraduate training of general practitioners.

Under the leadership of Assoc. prof. Sapundzhiev (him being the leading lecturer and practical educator) the main lecture and thematic courses/seminars of the specialists in otorhinolaryngology are held annually. With strong institutional support from MU-Varna a local State Examination Commission for ENT Diseases has been established in the University Clinic of Otorhinolaryngology, Assoc. prof. N. Sapundzhiev being the chairman (order of the Ministry of health RD-19-1/24.03.2021). In 2022, under his leadership, an exam for the specialty of otorhinolaryngology was held for the first time at MU-Varna.

Assoc. prof. N. Sapundzhiev is the founder and main driving force of the course cycle "Otorhinolaryngologia practica". The first course in the series was organized in October 2005 with main faculty Prof. Dr. B.M. Lipperrt, from the University of Mainz, Germany. In the following years, in tight cooperation with Prof. V. Platikanov and the team of the Department of

Anesthesiology and Intensive Care the course has 9 more editions with a focus on functional endoscopic nasal surgery, airway management, aesthetic and functional rhinoplasty, tracheo-bronchoscopy, endoscopically assisted surgery of the ear. The guest lecturers at the course were leading specialists from Germany and Romania. This traditional course confirms the reputation of the university clinic of otorhinolaryngology of MU-Varna among the leading centers in the specialty in our country.

Assoc. prof. N. Sapundzhiev has successfully supervised four doctoral students, contributing greatly to the definition of topics and the accumulation of clinical material:

1. Dr. Petya Stefanova Genova MD - doctoral student in independent form of study in the doctoral program "Otorhinolaryngology", field of higher education 7. Health care and sports, Professional area 7.1 Medicine, Department of "Neurosurgery and ENT diseases", Faculty "Medicine" at Medical University - Varna. Dissertation topic: "Surgical approach to obstructive sleep disordered breathing in childhood". The doctorate was defended on 12.01.2018.
2. Dr. Lora Teodorova Nikiforova MD - doctoral student in full-time study in the doctoral program "Otorhinolaryngology", field of higher education 7. Health care and sports, Professional area 7.1 Medicine, Department of "Neurosurgery and ENT diseases", Faculty "Medicine" at Medical University - Varna. Dissertation topic: "Pathologies of the Larynx in Neonates, Infants and Toddlers". The doctorate was defended on 07.06.2021.
3. Dr. Asen Georgiev Asenov MD. - doctoral student in independent form of study in the doctoral program "Otorhinolaryngology", field of higher education 7. Health care and sports, Professional area 7.1 Medicine, Department of "Neurosurgery and ENT diseases", Faculty "Medicine" at Medical University - Varna. Dissertation topic: "Voice rehabilitation of laryngectomy patients through voice prosthesis". The doctorate was defended on 17.12.2021.
4. Dr. Georgi Ivanov Davidov MD - doctoral student in full-time study in the doctoral program "Otorhinolaryngology", field of higher education 7. Health care and sports, Professional area 7.1 Medicine, Department of "Neurosurgery and ENT diseases", Faculty "Medicine" at Medical University - Varna. Dissertation topic: "Powered surgical tools applicable to otorhinolaryngology - comparative study". The doctorate was defended on 29.04.2022.

Currently Assoc. prof. N. Sapundzhiev is the supervisor of the following doctoral students:

1. D-r Blagovesta Hristova Spasova - doctoral student in full-time study in the doctoral program "Otorhinolaryngology", field of higher education 7. Health care and sports, Professional area 7.1 Medicine, Department of "Neurosurgery and ENT diseases", Faculty "Medicine" at Medical University - Varna. Research topic: "Application of videofluoroscopy to evaluate the neohypopharynx in patients after laryngectomy"
2. D-r Desislava Kirilova Stoyanova - doctoral student in full-time study in the doctoral program "Therapeutic dentistry", field of higher education 7. Health care and sports,

professional domain 7.2. Dental medicine, Department "Department of Periodontology and Dental Implantology", faculty of Dental Medicine at Medical University - Varna with primary doctoral supervisor Prof. Dr . St. Peev.

V. Evaluation of the medical and diagnostic activity:

Assoc. prof. N. Sapundzhiev is a versatile specialist with extensive experience gained in various clinics in Bulgaria and abroad. It greatly expanded the spectrum of activity of the University clinic of otorhinolaryngology in Varna and currently defines it completely. He introduced the following diagnostic methods into the clinic's routine: endoscopy of the upper airways, impedancemetry of the middle ear, conventional rhinomanometry, drug induced sleep endoscopy of the upper airways, laryngostroboscopy, computer phonological analysis.

The surgical spectrum of Assoc. prof. N. Sapundzhiev covers the entire spectrum of the specialty. After a period of certain stagnation in the surgical activity of the clinic (after the departure of Prof. Iv. Zenev (1997-2000) and Assoc. Prof. Dr. Iv Nachev (2000-2001) Assoc. prof. Sapundzhiev reestablished to routine the open laryngeal surgery performed by them in the past, neck dissection, surgery for tumors of the large salivary glands, reconstruction with a flaps, stapedectomy according to Portmann, reconstructions of tracheal stenoses incl. Montgomery stenting.

Assoc. prof. N. Sapundzhiev performed for the first time in the clinic:

Pharyngeal surgery: Extracapsular tonsillar surgery (tonsillotomy, incl. laser), uvulopalatopharyngoplasty, endoscopically assisted adenoidectomy (incl. microdebrider technique), endoscopic resection of juvenile angiofibroma, endoscopic nasopharyngectomy (Type I), endoscopic resection of hypopharyngeal masses by the Weerda method, endoscopic injection plasty for tracheoesophageal fistula.

Rhinosurgery: Endoscopic functional surgery of the nose and paranasal sinuses (FESS, endoscopic septoplasty, pansinusotomy, resection of benign and malignant tumors with this approach), endoscopic transnasal dacryocystorhinostomy, endoscopic medial maxillectomy, shaver rhinoplasty and septoplasty, submucosal conchoplasty *a modo Folz*, endoscopic transnasal orbital decompression and drainage, choanal atresia surgery (neonates and adults), total rhinoplasty with pedicled flap;

Otosurgery: Tympanoplasty with palisade technique, meatoplasty, stapedoplasty with titanium prostheses, ossicular chain reconstruction with cement, reconstruction in congenital middle ear malformations, endoscopic middle ear surgery (cholesthoma surgery and hearing improvement interventions)

Laryngeal surgery: Laterofixation *a modo Lichtenberger*, arytenoidectomy *a modo Thornell*, injection laryngoplasty, supraglottoplasty and microscopic laryngeal surgery in newborns, infants and toddlers, starplasty-tracheotomy, epiglottectomy with a coblator, excision of tissues with a laryngeal microdebriders, tracheoesophageal puncture *a modo Lichtenberger* and with an original technique for rehabilitation with voice prostheses after laryngectomy

Interventions of the trachea and bronchial tree: implantation of metal self-expandable tracheal stents (incl. Y-stent of the carina), endoscopic resection of tumors of the trachea, diagnostic fibrobronchoscopy and fibroscopic extraction of foreign bodies in children.

Looking beyond the borders of his specialty, Assoc. prof. Sapundzhiev participates in interdisciplinary teams, which carried out again for the first time in UMBAL "St. Marina" the following interventions:

- percutaneous dilatative tracheostomy, intubational anesthesia with intermittent apnea during microlaryngosurgery and tracheal surgery (Department of Anesthesiology and Intensive Care of the Medical University "Prof. Dr. Paraskev Stoyanov" Varna, led by Professor V. Platikanov);
- endoscopic resection of Zenker's diverticulum and esophageal polyps (Department of General and Operative Surgery, Medical University "Prof. Dr. Paraskev Stoyanov" Varna, led by Prof. Krasimir Ivanov, MD, PhD, DSc);
- endoscopic-assisted sinus lift (Department of Periodontology and Dental Implantology, Faculty of Dentistry, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, led by Prof. St. Peev MD. PhD);
- endoscopic dacryocystorhinostomy (Department of Ophthalmology and Visual Sciences, Medical University "Prof. Dr. Paraskev Stoyanov" Varna, led by Corresponding member Prof. Ch. Grupcheva, MD, PhD, DSc, FEBO, FICO(Hon), FBCLA, FIACLE);

Assoc. prof. N. Sapundzhiev carried for the first time at the ENT clinic in Varna interventions with CO₂-laser, microdebrider/shaver, tumor resection with coblator, ultrasound surgical devices (HARMONIC ACE, D&A Ultrasurg II), bipolar tissue fusion device (BiZact™), Weerda distending diverticuloscope, introduced in the surgical armamentarium tissue expanders for plastic interventions, endoscopic sinus surgery under navigation system.

I believe that the data provided to the candidate fully meet the requirements of the recruitment competition for acquiring the academic position "Professor". Assoc. prof. Sapundzhiev possesses the necessary clinical spectrum, knowledge, teaching and administrative experience for a professorship. To a big extent he defines the current modern spectrum of the ENT H&N clinic at UMABL "St. Marina" as a clinical, surgical and scientific center, has built over the years relations with his fellow specialists and broad interdisciplinary connections with related specialties within the structure of the Medical University - Varna. He used the opportunities for professional and scientific development, provided by the academic environment of our institution and contributed to the establishment of MU-Varna as the most modern and attractive medical university in Bulgaria.

CONCLUSION

The candidate for the competition, Assoc. prof. Dr. Nikolay Roumenov Sapundzhiev, MD, PhD fully meets the requirements for occupying the academic position of "Professor", according to the requirements of the Law on the Development of the Academic Staff in the

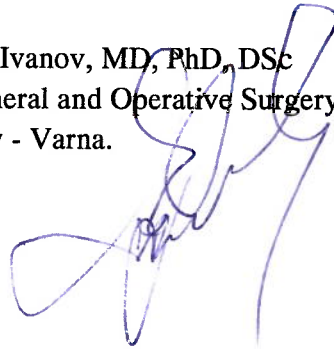
Republic of Bulgaria and the Regulations for its implementation at Medical University - Varna. The submitted documentation is complete and meets all the requirements. My personal impressions from him as a physician, specialist, surgeon and scientist are excellent.

The in-depth scientific work, extensive professional experience as a specialist in otorhinolaryngology and personal qualities of the candidate give me reason to confidently give my **POSITIVE** evaluation to the respected Scientific Jury and for awarding of academic position "Professor" to Assoc. prof. Dr. Nikolay Roumenov Sapundzhiev, MD, PhD.

20.10.2022

Reviewer:

Prof. Dr. Krasimir Ivanov, MD, PhD, DSc
Department of General and Operative Surgery,
Medical University - Varna.

A handwritten signature in blue ink, appearing to be 'K. Ivanov', is written over the printed name of the reviewer.