

## HISTORICAL NOTE

### DOCTORS AND LECTURERS FROM MACEDONIA ELECTED FOR THE FIRST TIME TO THE FACULTY OF MEDICINE IN SKOPJE IN THE PERIOD 1955–60

Doncho Donev<sup>1</sup>, Momir Polenakovic<sup>2</sup>

<sup>1</sup> Institute of Social Medicine, Faculty of Medicine, Ss Cyril and Methodius University, Skopje, R. Macedonia

<sup>2</sup> Macedonian Academy of Sciences and Arts, Skopje, R. Macedonia

Corresponding Author: Doncho Donev, MD, PhD, Professor, Institute of Social Medicine, Faculty of Medicine, Ss Cyril and Methodius University, MKD-Skopje, Republic of Macedonia. Phone: +389 2 3298580; Fax: +389 2 3298582, E-mail: dmdonev@gmail.com

*What is going to be recorded – it would remain, what is left  
just to be remembered – it would escape.*  
Arabic proverb

#### Abstract

*Aim:* To present a group of young doctors from Macedonia who were elected as lecturers at the Faculty of Medicine in Skopje, Macedonia, in the period 1955–60.

*Method:* A retrospective study based on archive materials, encyclopaedias and jubilee publications of the Faculty of Medicine and Faculty of Dentistry in Skopje, other relevant sources of information, and a review of the relevant literature.

*Results:* The Faculty of Medicine in Skopje was founded in 1947 and the first meeting of the Teachers' Council of the Faculty was held on March 17, 1947. The first generation of 153 students was enrolled in the autumn of 1947 and the first lecture was delivered on November 3, 1947.

Besides 15 doctors from Macedonia – faculty staff, who had been appointed in the period from 1947–54 and contributed to the establishment and initial development of the Faculty of Medicine in Skopje, an additional group of 23 lecturers from Macedonia was elected in the period from 1955–60. Those 38 pioneers and coryphaei of medicine in Macedonia played important roles in the establishing and/or further development of a number of the faculty departments/chairs, institutes and clinics within the newly established Faculty of Medicine in Skopje in 1947 and in the first 10–15 years of its initial development, until 1960 and later.

*Conclusion:* The Faculty of Medicine in Skopje, founded in 1947, played a crucial role in the education of medical professionals, in improving the poor health status of the population and the overall further development of the health system and provision of health care to the population of Macedonia. The contribution of the second group of 23 doctors and lecturers from Macedonia in furthering the development of the Faculty of Medicine in Skopje, during the 1950s and later, was very important.

**Key words:** faculty, medical; establishment, initial development; education, medical; teaching; Republic of Macedonia; doctors from Macedonia.

#### Introduction

In the years after the Second World War the then People's Republic (PR) of Macedonia was facing very difficult economic, cultural and health situations. Besides a devastated and ruined country, poverty and starvation in an exha-

usted and predominantly agricultural population, a culture in regression and poor economic conditions, the healthcare services in PR Macedonia were under-developed and very weak with only 120 doctors and the same number of nurses for about 1,200,000 inhabitants or 1 doc-

tor and 1 nurse per 10,000 population. The health status of the population was burdened with neglected pathology, numerous endemic spots and high morbidity and mortality, especially of the newborn, infants and small children [1–7]. During the 1950s the situation was slightly improved, but still the health status of the population was very poor with a huge shortage of medical staff. In the 1950s, the gigantic battle against poverty and diseases in PR Macedonia continued. An essential need was to intensify the education of medical professionals, qualified and educated medical staff that PR Macedonia still badly lacked in the 1950s [1, 2, 5, 7].

*Aim:* This is the fourth consecutive article in a series published in this journal in order to explore the contribution of the three main groups of doctors and lecturers (coming from Croatia and Serbia, in the first and second articles, and the doctors and lecturers from Macedonia in the period from 1947–54 and from 1955–60, in the third and this fourth article) to the establishment and initial development of the Faculty of Medicine in Skopje, PR Macedonia, in the period 1947–60 and later [5–7]. The aim of this study is to present the second group of 23 young doctors from Macedonia who were elected as lecturers from 1955–60 and contributed to further development of the Faculty of Medicine, as well as the Department/Faculty of Dentistry in Skopje, Macedonia, in 1950s and later.

### Methods

Various kinds of documentation, first of all the reports from Bulletins of the University in Skopje on the election of lecturers at the Faculty of Medicine in Skopje, whenever available, as the most reliable sources, archive materials, encyclopedias and biographical dictionaries from Macedonia and other countries, statistical records and jubilee publications of the Faculty of Medicine and Faculty of Dentistry in Skopje, the Macedonian Medical Society and other institutions, a review of the relevant literature and other relevant sources of information have been consulted in order to meet the aim and objectives of this study.

### Results

The Faculty of Medicine (FM) in Skopje was established in 1947 [5, 8]. The first mee-

ting of the Teachers' Council of the Skopje FM was held on 17<sup>th</sup> March 1947. The General County (Zemska) Hospital in Skopje provided core medical personnel and recruited the first teachers from Macedonia to the newly established FM in Skopje. The departments of the hospital were transformed into the first ten clinics, all together sharing 640 hospital beds [1, 2, 8–10].

The first six institutes of the Skopje FM were formed in 1947, located in the temporary prefabricated premises of the Secondary Nursing School and the Institute of Hygiene. At the same time construction of the building of the institutes began, into which the institutes moved in late 1948 and early 1949. Two amphitheatres with 150 seats each for theoretical lectures were constructed within the building of the institutes [5–12].

The construction of the new clinical block building started in 1953 with great support from Macedonian emigrants in the USA, Canada and Australia. The building of the clinical block was completed and ready for use in 1956. During the 1950s a number of new buildings, clinics and accessory buildings were constructed, so that the Skopje FM grew into a modern medical centre equipped with all the necessary preclinical and clinical facilities [1, 2, 7, 8, 11–13].

The regular education process for the first generation of 153 students enrolled at the Skopje FM began on November 3, 1947, in accordance with the 6-year Plan and study regimens identical to the plans and regimens of study in the other medical faculties in FPR Yugoslavia [1, 2, 5–7, 9–11, 14–16]. At that period of the initial educational process and real existence of the Skopje FM there were 19 teachers and 40 medical doctors, some of them being assistant lecturers [13].

The Skopje FM was the basis for the formation of the Faculty of Dentistry and the Faculty of Pharmacy in Skopje, providing continuously and to the present time interdisciplinary support to the teaching process in those faculties [3, 8].

### **Doctors and lecturers from Macedonia elected for the first time from 1955–60, who contributed to the further development of the Faculty of Medicine in Skopje**

Besides the first group of 15 leading doctors and lecturers from Macedonia who contributed the most to the establishment and/or initial

development of the Skopje FM, in the period 1947–54 a group of 23 young lecturers (assistant professors) from Macedonia were elected in the period 1955–60. They strengthened the staffing of the existing 9 clinics and 4 institutes and were a power moving forward for the further development of the healthcare, professional, research and educational activities of the Skopje FM. Some essential details about this young group of lecturers are presented, in alphabetical order, in Table 1 (at the end of the article).

This group of 23 young teachers from PR Macedonia, shown in Table 1, contributed to the further development of certain departments/chairs and organizational units (clinics and institutes) of the Skopje FM in the period from 1955–60 and later, and thus some of them performed certain managerial functions. Below are shown 9 clinics (ear nose and throat diseases, internal medicine, paediatrics, neuropsychiatry, surgery, gynaecology and obstetrics, ophthalmology, infectious diseases and dentistry), 3 institutes (microbiology, radiology, and pathological anatomy), and the relevant chairs within them, as well as one chair (hygiene with social medicine) affiliated to the Institute of Hygiene in Skopje. This second group of 23 young doctors and teachers from Macedonia are presented with brief CVs and photos in boxes, in alphabetical order according to the first letter of the surname and grouped by the organizational unit (clinic or institute) in which they were employed and contributed to its further development.

### *1. Development of the Clinic and Chair of Ear, Nose and Throat Diseases*

The Ear, Nose and Throat Diseases Clinic at the Skopje FM was established in 1947 by transforming the previous Department of Ear, Nose and Throat Diseases of the General County Hospital. The Clinic was situated in limited and inappropriate conditions on the ground floor of the east wing of the old hospital building, with about 35 hospital beds for male and female departments, a simple operating theatre serving for endoscopy also, with poor equipment. In 1957, the Ear, Nose and Throat Diseases Clinic moved to the clinical block building in much better spatial conditions, with 80 hospital beds, three operating theatres, endoscopy and a laboratory, and gained additional space for an outpatient department within the new polyclinics building at the Skopje FM. A few years later, in 1961, the Audiological Centre within the Clinic was created and located in an adapted area in the basement below the Internal Medicine Clinic [12]. Professor Dr. Petar Zdravev was appointed as the first Director of the Clinic, as well as the Head of the Chair of Ear, Nose and Throat Diseases from 1947 until his retirement in 1957 [7]. The second Director of the Clinic and Head of the Chair of Ear, Nose and Throat Diseases was Assist. Professor Aleksandar Andreevski (Box 1). In 1960, Dr. Aleksandar Hadži-Boškov was elected Assistant Professor in Otorhinolaryngology (Box 2).

#### **Box 1. Aleksandar Andreevski, Academician, Professor of Otorhinolaryngology [12, 17–19]**



Prof. Dr. Aleksandar Andreevski graduated from the Zagreb FM in 1948. He started his specialization at the Ear, Nose and Throat Clinic in Zagreb in 1949 and after two years had to move to Skopje. He completed the specialization in otorhinolaryngology in Skopje in 1953 and soon was elected Assist. Lecturer. In early 1957 he was elected Assist. Professor and then appointed Director of the Clinic of Ear, Nose and Throat Diseases at the Skopje FM, serving in this position for 30 years. He made a number of professional visits to renowned clinics in Paris, London, Moscow, Leningrad, Prague, Warsaw, Berlin, Hamburg, Hanover, Lyons and other centres, with special attention to reconstructive functional surgery in patients with cancer of the larynx. In early 1961 he was elected Assoc. Professor and in 1967 Professor. He was Vice-Dean (1960–63) and Dean of the Skopje FM (1965–67 and 1967–69). He was the first Director of the University Centre of Medical Sciences (1978–80) and Rector of Ss Cyril and Methodius

University in Skopje (1982–84). In 1979 he became an associate member and in 1986 was elected an Academician, being Vice-president of MASA with two mandates, from 1992–99. He was a founder of modern otorhinolaryngology in Macedonia.

Academician Prof. Dr. Aleksandar Andreevski died in Skopje in 2005.

**Box 2. Aleksandar Hadži-Boškov, Professor of Otorhinolaringology [20, 21]**

Prof. Dr. Aleksandar Hadži-Boškov started his medical studies in Sofia in 1942 and then continued in Zagreb and Belgrade, where he graduated in 1950. He started his specialization in otorhinolaringology in Skopje in 1952 and then spent a few months at the Ear, Nose and Throat Clinic in Zagreb. He successfully passed the specialists exam in Skopje in 1955 and in the same year was appointed Head of the Department of the Ear, Nose and Throat Clinic and elected Assist. Lecturer in otorhinolaringology at the Skopje FM. In 1960 he was elected Assist. Professor, in 1966 Assoc. Professor (re-elected in 1972), and Professor in otorhinolaringology at the Skopje FM in 1973.

Prof. Hadži-Boškov was involved in many social managerial activities and thus performed a number of managerial functions, among them President of the Managerial Board and Council of the Ear, Nose and Throat Clinic, as well as being a representative to the City Parliament of Skopje.

Prof. Dr. Aleksandar Hadži-Boškov died in Skopje in 1987.

**2. Development of the Internal Medicine Clinic**

The Internal Medicine Clinic, with about 110 hospital beds, was one of the first nine clinics established at the Skopje FM in March 1947. The first Director and founder of the Clinic of Internal Medicine was Prof. Dr. Aleksandar Ignjatovski [6], who came from Belgrade in 1948. Prof. Ignjatovski led the Clinic of Internal Medicine in Skopje until his retirement in 1952. Then Assist. Prof. Dr. Dimitar Arsov was appointed Director of the Clinic and Head of the Chair of Internal Medicine, and served in those positions in the period 1952–74 [7].

In the first few years of its existence the Internal Medicine Clinic had the character of a general internal medicine facility, and later on, in 1953, was transformed into many super-spe-

cialist units and sections that grew into today's special university clinics (Cardiology, Pulmonology, Gastroenterology, Endocrinology, Haematology, Nephrology, Rheumatology, Clinical Laboratory for biochemical analyses, haematology and cytology, and Internal Medicine Polyclinics) [1, 8, 9].

The first directors/heads of those clinics were young doctors from Macedonia, some of them elected as assistant professors at the Skopje FM in the period from 1955–60: Penčo Davčev as director of the Clinic of Gastroenterology (Box 3), Dimitar Hrisoho as director of the Clinic of Nephrology (Box 4), Jonče Nedelkovski as director of the Clinic of Haematology (Box 5) and Radovan Perčinkovski as director of the Clinic of Cardiology (Box 6).

**Box 3. Penčo Davčev, Academician and Professor of Internal Medicine [12, 17, 18, 22]**

Prof. Dr. Penčo Davčev completed medical studies in 1948 in Belgrade and continued with specialization in internal medicine in Skopje. He passed the specialist exam in 1952 and a year later he was elected Assist. Lecturer. In 1956 he was elected University Lecturer and then Assist. Professor (1957), Assoc. Professor (1962) and Professor (1969).

Prof. Davčev was elected Head of the Chair of Internal Medicine, and twice elected Vice-Dean (1965–69) and Dean (1971–73) of the Skopje FM. He made professional visits and stays at gastroenterohepatology clinics in Paris, London and Berlin. Prof. Davčev introduced a number of new methods, especially related to endoscopy diagnostics of hepatitis B and C and etiology of liver cirrhosis and cancer connected with hepatitis B infection. He was a founder of modern gastroenterohepatology in Macedonia. Prof. Davčev served as President of the Macedonian Medical Society from 1960–61. In 1983 he was elected an associate member and in 1988 a regular member of the Macedonian Academy of Sciences and Arts.

Academician Prof. Dr. Penčo Davčev died in Skopje in 1995.



**Box 4. Dimitar Hrisoho, Professor of Internal Medicine [12, 20, 23]**

Prof. Dr. Dimitar Hrisoho completed medical studies in 1951 in Belgrade. He specialized in internal medicine in Skopje in 1955 and during the specialization spent some time in Belgrade. A year later he was elected Assist. Lecturer at the Skopje FM. In 1959 he was elected Assist. Professor, then Assoc. Professor in 1964 (re-elected in 1970) and Professor in 1971. In 1955 he established and became the first Head of the Renal Unit within the Internal Medicine Clinic. In 1975 he became the first Director of the Nephrology Clinic, serving in that position until 1981. His special research interest was nephropathy of the Balkans, renal hypertension and renal failure. Prof. Hrisoho was the founder of modern nephrology in Macedonia.

Prof. Hrisoho performed a number of social managerial functions. He served as a member of the National Council for Health, Social Policy and Education, the Hospital Committee at the Skopje FM, the Managerial Board of the Macedonian Medical Society and a member of the Editorial Board of the Macedonian Medical Review. He served as Vice-Dean (1963–65) of the Skopje FM and Vice-Rector (19974–75) of Ss Cyril and Methodius University in Skopje. Prof. Dr. Dimitar Hrisoho died in Skopje in 1986.

**Box 5. Jonče Nedelkovski, Professor of Internal Medicine [12, 18, 20, 24]**

Prof. Dr. Jonče Nedelkovski started medical studies in 1942 in Sofia and, after a break of a few years because of the war, continued and graduated from Belgrade FM in 1951. He completed his specialization in internal medicine in Skopje in 1955.

Prof. Nedelkovski was elected an Assist. Lecturer in 1953. Later he was elected Assist. Professor (1959), Assoc. Professor (1964) and Professor in 1972 at the Skopje FM. In the period 1955–70 he served as Head of the Unit of Haematology within the Internal Medicine Clinic. In 1970 the Institute of Transfusiology and Haematology was established and he served as Director of the Institute from 1971–80, when a separate Clinic of Haematology was established. Prof. Nedelkovski made professional visits to Belgrade, Lyons and Glasgow. He was the founder of modern haematology in Macedonia and published more than 250 scientific papers.

Prof. Nedelkovski served as President of the Macedonian Medical Society from 1962–63 and Editor-in-Chief of the Macedonian Medical Review from 1966–70.

Prof. Dr. Jonče Nedelkovski died in Skopje in 2012.

**Box 6. Radovan Perčinkovski, Professor of Internal Medicine [12, 18, 20, 25]**

Prof. Dr. Radovan Perčinkovski started medical studies in Sofia in 1941 and graduated from the Belgrade FM in 1948. He completed specialization in internal medicine in Skopje in 1953 and in the same year was elected Assist. Lecturer. During his specialization he made a professional visit of three months to Zagreb and later on, as a specialist, he spent one year in Paris. He made some short visits of a few days or weeks to Warsaw, Krakow and Zurich. In December 1953 he was appointed Head of the Unit of Cardiology within the Internal Medicine Clinic and then Director of the Cardiology Clinic in 1975.

He was elected Assist. Lecturer in 1953, University Lecturer in 1956, Assist. Professor in 1958, then Assoc. Professor in 1963 (re-elected in 1968) and Professor in 1970 at the Skopje FM. He had a special research interest in electrocardiographic changes in hypo- and hypertrophic ischaemia of the myocardium, as well as cardiovascular diseases related to alcoholism.

Prof. Perčinkovski served as Dean of the Faculty of Medicine in Skopje from 1974–76. Prof. Dr. Radovan Perčinkovski died in Skopje in 1996.

### 3. Development of the Paediatric Clinic

The Paediatric Clinic at the Skopje FM was established in 1947 by transforming the previous Department of Children's Diseases at the General County Hospital, with 60 hospital beds placed in limited and modest conditions. The first Director of the Paediatric Clinic was Assist. Prof. Haralampie Mančev, who served in the period from 1947 to 1957 [7].

In 1957 the Paediatric Clinic moved to a new building with more than 100 hospital beds shared by three differentiated departments (for infants, for children of 2–3 years of age and for preschool and school children). The Heads of the departments were Assist. Prof. Dr. Hristo Duma (Box 7), who was appointed Director of the Paediatric Clinic, Assist. Prof. Dr. Avram Sadikario (Box 8) and Assist. Prof. Dr. Duško Teodosievski (Box 9).

#### Box 7. Hristo Duma, Professor of Paediatrics [12, 17, 18, 26]



Prof. Dr. Hristo Duma graduated from the Belgrade FM in 1948, and completed specialization in paediatrics in 1953 at the same faculty. Then he made a professional one-year stay in Paris (1953–54). For the next three years he worked in Bitola General Hospital as head of the Department of Paediatrics. In 1956 he was elected Assist. Lecturer at the Clinic of Paediatrics at the Skopje FM, and in 1957 University Lecturer. At the same time he was appointed as Acting Head of the Clinic of Paediatrics. He was elected Assist. Professor in 1958, Associate Professor in 1964 (re-elected in 1970), and Professor in 1971. He served as Director of the Paediatrics Clinic from 1962–75.

Prof. Duma was elected Vice-Dean (1960–63) and Dean of the Skopje FM (1969–71). His special research interest was molecular biology and human genetics, neurophysiology and immunohaematology.

He organized a cytogenetic laboratory within the Paediatrics Clinic and contributed to research into and differentiation of haemoglobinopathies.

Prof. Dr. Hristo Duma died in Skopje in 2009.

#### Box 8. Avram Sadikario, Professor of Paediatrics [12, 20, 27]



Prof. Dr. Avram Sadikario started his medical studies in Belgrade in 1938, for the first three years, and, after some interruption, he graduated in Sofia in 1946. In 1948 he started specialization in paediatrics at the Skopje FM and completed the specialist's exam in 1951. He had a two-month stay in Paris and then completed a four-month course on social paediatrics organized by the WHO. In 1952 he was elected Assist. Lecturer and in 1957, University Lecturer. He was elected Assist. Professor in 1958, Assoc. Professor in 1964 (re-elected in 1970), and Professor in 1971. His special research interest was in the field of haematho-oncology and haemoglobinopathies, as well as malnutrition in children (kwashiorkor).

Prof. Sadikario served as Director of the Paediatric Clinic from 1974–82. He wrote poetry and was accepted as a member of the Society of Writers of Macedonia in 1973.

Prof. Dr. Avram Sadikario died in Skopje in 2007.

**Box 9. Dušan Teodosievski, Professor of Paediatrics [12, 18, 20, 28]**

Prof. Dr. Dušan Teodosievski started medical studies in 1941 in Sofia, for the first two years, and made a break because of the war. In 1945 he resumed his studies and graduated from the Belgrade FM in 1949. He started specialization in paediatrics in Belgrade, just for a few months, and completed it in Skopje in 1955. He was elected Assist. Lecturer in 1953 and University Lecturer in 1957. In 1957 he made a six-month professional stay visiting related clinics of paediatrics in Belgrade, Zagreb and Ljubljana, and in 1960 had a six-month stay in Paris. In 1959 he was elected Assist. Professor, in 1965 Assoc. Professor (re-elected in 1971) and Professor in 1973 at the Skopje FM. He was appointed Director of the Special Children's Tuberculosis Hospital in Skopje from 1972–87.

Prof. Dr. Dušan Teodosievski performed many social managerial functions and activities within the Trade Unions of Health Workers in Yugoslavia, being President from 1952–62, then as a member of the Council of Public Health in Macedonia and of the Management Board of the Skopje FM. He served as President of the Macedonian Medical Society from 1967 to 1970.

Prof. Dr. Dušan Teodosievski died in Skopje in 2002.

#### 4. Development of the Neurology and Psychiatry Clinic

The Clinic of Psychiatry, with 38 hospital beds, was one of the first nine clinics established in March 1947. The renowned psychiatrist Professor Dr. Božidar Niketić was appointed as the first Director of the Clinic [7]. Prof. Niketić was the first holder of the Chair of Neurology and Psychiatry, from 1953 to 1963. Two young doctors were elected as assistant professors in 1958: Dr. Petar Fildiševski (Box 10) and Dr. Stefan Stefanovski (Box 11).

The hospital capacities of the Neurology and Psychiatry Clinic were increased over the next ten years to about 80 beds but were still insufficient to meet the much higher needs for the hospitalization of patients with serious mental disorders. In 1956 a special hospital for psychiatric diseases, Bardovci, was established near Skopje, as a unit of the Clinic till 1963, when it became an independent institution, today the largest hospital for mental disorders and an educational base of the Faculty of Medicine in Skopje, with more than 700 beds and more than 50 doctors employed in it.

**Box 10. Petar Fildiševski, Professor of Neurology and Psychiatics [12, 20, 29]**

Prof. Dr. Petar Fildiševski graduated from the Belgrade FM in 1951. In the same year he started specialization in Skopje and passed the specialist exam in neurology and psychiatrics in 1954. He made a professional stay of a few months in related institutions at the FM in Zagreb. He was granted a fellowship from the WHO and made a six-month visit to renowned institutions of neurology and psychiatry in France, Belgium and Switzerland. His special research interest was clinical neurology and electroencephalography, with an emphasis on the diagnostics of epilepsy.

In 1958 Dr. Fildiševski was elected Assist. Professor, and later on, in 1964, Assoc. Professor (re-elected in 1969), and Professor in 1972 at the Skopje FM.

He was appointed Director of the Clinic of Neurology and Psychiatry in 1964 and served till 1978. Prof. Dr. Petar Fildiševski died in Skopje in 1994.



**Box 11. Stefanovski Stefan, Professor of Neurology and Psychiatics [12, 18, 20, 30]**

Prof. Dr. Stefan Stefanovski started medical studies in Sofia in 1942, just for the first year, and after a break because of the war he continued studying in Zagreb and Belgrade. He graduated from the Belgrade FM in 1950. In the same year he joined the Clinic of Neurology and Psychiatry at the Skopje FM and began specialization. He passed the specialist exam in neurology and psychiatry in 1953 and was elected Assist. Lecturer at the Skopje FM. In 1958 Dr. Stefanovski was elected Assist. Professor, then Assoc. Professor in 1964 (re-elected in 1970) and Professor in 1972 at the Skopje FM. He made a number of professional visits to the leading centres for neurology and psychiatry in Yugoslavia, as well as to Germany (Munchen), Switzerland (Bern and Zurich) and England. He served as Director of the Neurology Clinic from 1978–87.

In the period 1973–77 Prof. Stefanovski served as President of the Macedonian Medical Society and was a member of the Presidency of the Association of the Medical Societies of Yugoslavia, as well as an honorary member of the Medical Society of Montenegro. Prof. Dr. Stefan Stefanovski died in Skopje in 2002.

**5. Development of the Clinic and Chair of Surgery**

The Surgical Clinic at the Skopje FM was established in 1947 with 160 hospital beds, and after three years (1950) the number of beds had increased to 180. In the next nine years, until 1959, the number of beds again increased to 275 [11, 14].

The first two directors of the Surgical Clinic were Prof. Dr. Dimitrie Juzbašić (1947–53) and Prof. Dr. Branko Oberhofer (1954–56), both from the Zagreb FM [5]. During the period before his coming and when Prof. Oberhofer was absent from time to time, Assoc. Prof. Dr. Sotir Stavridis (from Aug 1953 to Sept 1954) and Assist. Prof. Panče Karagjozov (until 1958) were appointed as Acting Directors of the Cli-

nic of Surgery and Head of the Chair. In 1958 Prof. Dr. Bogosav Dragojević from the Belgrade FM joined the Surgery Clinic as director and head of the chair [6].

Early in the first years of its existence the clinic had the character of a general medical surgical facility, and later on, in 1954, was transformed into many super-specialist departments and sections that grew into today's specialist university clinics (Traumatology, Thoracic and Vascular Surgery, Abdominal Surgery, Urology and Paediatric Surgery).

Newly elected in 1959, Assistant Professor Dr. Krsto Georgiev was appointed in the early 1960s as Head of the Abdominal Surgery Clinic (Box 12).

**Box 12. Krsto Georgiev, Professor of Surgery [12, 17, 31]**

Prof. Dr. Krsto Georgiev started medical studies at the FM in Belgrade in 1936, for the first three years, and continued and graduated from the Sofia FM in 1942. In 1946, Dr. Georgiev was appointed Vice-Director of the Institute for Social Insurance of Macedonia and cooperated closely with the Ministry of Public Health. In 1948 he started specialization in surgery in Geneva and Zurich, Switzerland, and after six months returned to Skopje and joined the Surgery Clinic at the Skopje FM. He completed specialization in surgery and in 1953 moved to Bitola General Hospital as Head of the Department of Surgery. After a year of service he returned to Skopje and was appointed Head of the Male Department of Abdominal Surgery. He was elected Assist. Lecturer in 1954, and then Assist. Professor in 1959, Assoc. Professor in 1965 (reelected in 1970) and Professor in 1972. In 1962–63 he had a six-month professional stay in London and after coming back he introduced a number of new methods and techniques in the field of abdominal surgery.

Prof. Dr. Krsto Georgiev died in Skopje in 1975.



In October 1958 two additional independent clinics were established. The first was the Neurosurgery Clinic, headed by Assist. Professor

Dr. Petar Tofović, while the second was the Plastic and Reconstructive Surgery Clinic, headed by Assist. Professor Dr. Jovan Panovski (Box 13).

**Box 13. Jovan Panovski, Professor of Surgery [12, 20, 32]**



Prof. Dr. Jovan Panovski started medical studies in Belgrade in 1939 for the first two years, and continued in Sofia and Zagreb with some interruptions during the war. He graduated from the Zagreb FM in 1947 and joined the Surgery Clinic in Skopje. Dr. Panovski completed specialization in surgery in 1953 and was elected Assist. Lecturer in surgery. In the same year he was appointed Head of the Department of Child Surgery at the Skopje FM. He extended his expertise and support for reorganization and strengthening the departments of surgery in the general hospitals in Strumica, Shtip and Bitola. In 1955 he spent one year on sub-field specialization in plastic surgery in Edinburgh, visiting related clinics in London, Oxford and Glasgow. In 1956 he became Head of the Department of Plastic Surgery at the Skopje MF. He was elected Assist. Professor in 1958, Assoc. Professor in 1964 (re-elected in 1968) and Professor in 1971 at the FM-Skopje.

Prof. Panovski was the founder and first Head of the Department of Surgery within the Skopje City Hospital from 1962–70, and served as Director of the Skopje City Hospital from 1968–70. He was one of the leading surgeons at the Skopje FM in the 1960s who initiated the establishment of the Department for Plastic and Reconstructive Surgery and the Department for Child Surgery at the Surgical Clinic in 1969.

Prof. Dr. Jovan Panovski died in Skopje in 1994.

*6. Development of the Chair of Hygiene and Social Medicine*

A course in hygiene, with contents from the field of social medicine, was included in the curriculum of the first 6-year Plan and study regimen of the Skopje FM, with 90 theoretical lectures and 120 practical exercises and field work/visits. Prof. Dr. Sterjo Bozdov was appointed the first lecturer and Head of the Chair of Hygiene, from 1947–52. For the next four-

year period (1952–56) the teaching process of this course was carried out by the honorary lecturer Prof. Dr. Bogdan Karakašević [6]. In 1956 the university lecturer in hygiene and social medicine, Dr. Nikola Georgievski (Box 14), who had been elected assistant professor in 1961, took responsibility for theoretical lectures on this course with the new title of Hygiene with Statistics and Social Medicine, until 1965.

**Box 14. Nikola Georgievski, Assistant Professor of Hygiene and Social Medicine [12, 17, 33, 34]**



Assist. Prof. Dr. Nikola Georgievski started medical studies in Sofia in 1941, for the first two years, and, after an interruption of a few years because of the war, continued and graduated from the Zagreb FM in 1949. In 1952–53 he completed a postgraduate course in hygiene in Paris. He completed specialization in hygiene in Zagreb, at the Andrija Stampar School of Public Health, in 1954.

Dr. Georgievski was elected Assist. Lecturer in hygiene in 1951, then University Lecturer (1956) and Assist. Professor (1961). He was appointed Head of the Chair of Hygiene and Social Medicine (1952–65).

Assist. Prof. Georgievski served as Minister of Public Health of Macedonia (1962–65) and Federal Minister of Health and Social Policy (1967–72), as well as President of the Red Cross of Yugoslavia (1972–76). In 1977 he joined WHO as a Head of the WHO Mission in Indochina (Hanoi). In 1982 he continued the mission in the Manila WHO Regional Office for the West Pacific. After returning to Yugoslavia he was appointed Vice-President of the Federal Committee of Labour, Health and Social Policy and Director of the Federal Sanitary Inspectorate until his retirement in 1988. In 1990 he moved to Toronto, Canada, and founded the NGO "Canadian Friends of Children with Special Needs".

Assist. Prof. Dr. Nikola Georgievski died in Toronto in 2000.

### 7. *Development of the Gynaecology and Obstetrics Clinic*

The Gynaecology and Obstetrics Clinic was created in 1947, with a capacity of about 60 hospital beds, an operating theatre and birth-delivery space within the facilities of the previous Department of Gynaecology and Obstetrics of the General County Hospital in Skopje [11]. Prof. Dr. Milenko Berić was its founder and was appointed as the first Director of the Clinic and Head of the Chair [6]. He served until 1957, when Assoc. Prof. Anton Čakmakov [7] became the Director of the Clinic and Head of the Chair of Gynaecology and Obstetrics at the Skopje FM.

In 1952 the Gynaecology and Obstetrics Clinic moved to its newly-adapted building with a total of 220 hospital beds (122 for gyna-

ecological diseases and 98 for pregnant women and women after delivery), as well as 90 beds for newborn babies. In the period 1955–60, the teaching staff of the Gynaecology and Obstetrics Clinic was strengthened by three elected assistant professors: Aleksandar Lazarov (Box 15), Metodija Stankovski (Box 16) and Ljubomir Šukarov (Box 17). During the 1950s some 14 young and successful doctors were employed and started specialization in gynaecology and obstetrics, creating the future professional and educational potential of the Clinic and many departments of gynaecology and obstetrics in Macedonia: Dr. K. Kjurčiev, Dr. E. Kalamares, Dr. B. Berić, Dr. M. Šahpazov, Dr. M. Antić, Dr. A. Sivevski, Dr. M. Paljić, Dr. Z. Živanović, Dr. D. Popović, etc. [6, 12].

#### **Box 15. Aleksandar Lazarov, Professor of Gynaecology and Obstetrics [12, 17, 35]**



Prof. Dr. Aleksandar Lazarov graduated from the Faculty of Medicine in Belgrade in 1948. He started specialization in Belgrade and continued in Bitola and Skopje, where he passed the specialist exam in gynaecology and obstetrics in 1953. Besides one to the Military Medical Academy in Belgrade, he made professional visits and stayed in many centres, especially in Germany, becoming an expert with excellent diagnostic and surgical skills. He was the founder of operative gynaecology in Macedonia.

In 1954 Dr. Lazarov was elected Assist. Lecturer, and later Assist. Professor in 1957, Assoc. Professor in 1963 (re-elected in 1968), and Professor in 1970 at the Faculty of Medicine in Skopje.

Prof. Lazarov was the Director of the Clinic of Gynaecology and Obstetrics from 1975 to 1983. He published more than 250 professional and scientific articles.

Prof. Dr. Aleksandar Lazarov died in Skopje in 1990.

#### **Box 16. Metodija Stankovski, Professor of Gynaecology and Obstetrics [12, 20, 36]**



Prof. Dr. Metodija Stankovski graduated from the Belgrade FM in 1947. One year later he started specialization in Skopje and passed the specialist exam in gynaecology and obstetrics in 1952. During the 1955–56 Academic Year he made a six-month study-visit to London, with a special research interest in gynaecological endocrinology. After returning to Skopje he founded a laboratory for gynaecological endocrinology, as well as a service for contraception and a service for early diagnosis of cervical cancer.

In 1952 Dr. Stankovski was elected Assist. Lecturer, and later Assist. Professor in 1957, Assoc. Professor in 1963 (re-elected in 1968), and Professor in 1970 at the Skopje FM.

In 1973–74 Prof. Stankovski served six months as Acting Director of the Gynaecology and Obstetrics Clinic. He was Head of the Department of Surgical Gynaecology (1955–57), the Department of Conservative Gynaecology (1957–73), and the Department of Functional Gynaecology (1975–83).

Prof. Dr. Metodija Stankovski died in Skopje in 1989.

**Box 17. Ljubomir Šukarov, Professor of Gynaecology and Obstetrics [12, 18, 20, 37]**

Prof. Dr. Ljubomir Šukarov started medical studies in 1938 in Belgrade and graduated from the Sofia FM, Bulgaria, in 1944. In 1947 he started specialization in gynaecology and obstetrics in Skopje and continued in Zagreb, with a one-year stay. He returned to Skopje and passed the specialist exam in 1951 and became the first specialist in gynaecology and obstetrics from Macedonia. He upgraded his expertise in many renowned centres in Europe (Paris for a 7-month stay) and promoted super-specialist orientation of the Clinic. By introducing new diagnostic and therapy methods (exfoliative cytology, colposcopy and laparoscopy), he contributed to the advancement of professional expertise, scientific and publishing level of the Clinic of Gynaecology and Obstetrics. In 1951 Dr. Šukarov was elected Assist. Lecturer, and later Assist. Professor in 1957, Assoc. Professor in 1962 and Professor in 1969 at the Skopje FM.

Prof. Šukarov was the Director of the Clinic of Gynaecology and Obstetrics from 1968 to 1973. In addition, Prof. Šukarov served as Vice-Rector of the Ss Cyril and Methodius University in Skopje 1967–68.

Prof. Dr. Ljubomir Šukarov now lives in Skopje at the age of 94 years.

### 8. Development of the Clinic of Ophthalmology

The Ophthalmology Clinic was founded in 1947 by transforming the Department of the General County Hospital in Skopje with 40 hospital beds, a small operating theatre and poor equipment. Its founder and the first Director until 1952 was Assistant Professor Alfred Ludwig from the Ophthalmology Clinic in Prague [11, 12]. The first doctor from Macedonia who completed specialization in ophthalmology, in 1952, was Dr. Dimitar Miovski (Box 18). In 1957, the Ophthalmology Clinic moved to new premises within the clinical block building,

with 70 hospital beds, two modern operating theatres and a polyclinic. New spatial conditions provided faster further development of the Clinic with the establishment of new departments and cabinets, as well as introducing many modern methods for diagnostics and treatment, conservative and surgical, of eye diseases. In addition, the Ophthalmology Clinic provided conditions for realization of the teaching process, through the Chair of Ophthalmology, for the students at the Faculty of Medicine and the Faculty of Dentistry, as well as delivering lectures for postgraduate students and doctors on specialization in Ophthalmology.

**Box 18. Dimitar Miovski, Professor of Ophthalmology [12, 20, 38]**

Prof. Dr. Dimitar Miovski graduated from the Faculty of Medicine in Belgrade in 1941. In 1947 he started specialization in ophthalmology in Skopje under the guidance of Assist. Prof. Alfred Ludwig. He passed the specialist exam in 1952. In the same year he was appointed Head of the Department of Ophthalmology and, later on, in 1960, Director of the Ophthalmology Clinic at the Skopje FM. He was re-appointed to this position in 1973. He made professional visits of a few months to Zagreb and Lyons, France, in 1958, and later to leading ophthalmology centres in Switzerland (Geneva, Lausanne, Bern, Zurich) with a special research interest in keratoplastics.

Dr. Miovski was appointed Assist. Lecturer in ophthalmology at the FM in Skopje in 1954, and then Assist. Professor in 1959, Assoc. Professor in 1965 (re-elected in 1971) and Professor in 1974.

In 1945 he was appointed Assist. Minister within the Ministry of Public Health of Macedonia.

Prof. Dr. Dimitar Miovski died in Skopje in 1982.



### 9. *Development of the Clinic and Chair of Infectious Diseases*

The Infectious Diseases Clinic was integrated within the Internal Medicine Clinic as the Infectious Diseases Department, with about 70 hospital beds, in March 1947. During the 1950s the number of hospital beds was increased to about 200. Prof. Dr. Aleksandar Ignjatovski was Acting Head of the Infectious Diseases Department until 1952, and started by delivering lectures in infectious diseases in 1950 [6]. In the period 1952–54, Professor Mihailo Nikolić from the Belgrade FM was appointed honorary lecturer of infectious diseases and Acting Head of the Department of Infectious Diseases at the Skopje FM. Towards the end of 1954, the retired lecturer Prof. Ignjatovski was again appointed to be responsible lecturer in infectious diseases until his death in

mid-1955. In the period 1955–59, the Infectious Diseases Clinic was led by a few other Acting Heads: Assist. Prof. Haralampie Mančev, Prof. Dr. Gligor Muratovski, Prim. Dr. Risto Trifunov-Brezjanin and Assoc. Prof. Dr. Dimitar Arsov [7]. In 1959, Dr. Save Mironski was elected Assistant Professor and soon after was appointed Head of the Chair and, in 1960, Director of the Infectious Diseases Clinic. The appointment of a permanent teacher and director of the Clinic was crucial for the further development of the clinical practice by establishing new departments within the Infectious Diseases Clinic, and the advancement of teaching processes and scientific research activities. Prof. Dr. Save Mironski served in the positions of Director and Head of the Chair of Infectious Diseases for more than 20 years (Box 19), [1, 9, 12].

#### **Box 19. Save Mironski, Professor of Infectious Diseases [1, 12, 18, 20, 39]**



Prof. Dr. Save Mironski started medical studies in Sofia in 1942 and graduated from the FM in Belgrade in 1949. He joined the Institute of Pathological Physiology and in 1952 he moved to the Internal Medicine Clinic, being elected as Assist. Lecturer in 1953 and University Lecturer in internal medicine in 1957. He completed specialization in internal medicine in 1955 and was appointed Head of the Department of Endocrinology and Metabolism. He made a professional visit of six months to the Rebro Internal Medicine Clinic, Zagreb, and in 1958 made a three-month stay studying infectious diseases in Belgrade and then the London Western Fever Hospital. In 1959 he was elected Head of the Chair of Infectious Diseases and in 1960 appointed Director of the Clinic of Infectious Diseases at the Skopje FM. He served continuously in these positions for more than 20 years, until his retirement in 1986.

Dr. Mironski was elected Assist. Professor in internal medicine in 1958. In 1960 he was appointed lecturer responsible for the course on infectious diseases. Then he was elected Assoc. Professor in infectious diseases in 1965 (re-elected in 1970), and Professor in 1972.

Prof. Mironski served as Vice-Dean (1969–71) and as Dean (1976–78) of the Skopje FM.

Prof. Dr. Save Mironski died in Skopje in 2013.

### 10. *Development of the Institute and Chair of Microbiology*

The Institute of Microbiology started its activities in the academic year 1949–50, with only one assistant lecturer in microbiology delivering all the practical lectures and laboratory exercises to the first generation of students. Theoretical lectures in microbiology through intensive courses for the first generation of students were delivered by Professor Dr. Aleksandar Djordjević, [6] coming from the Belgrade

FM. Then, theoretical lectures and exams in microbiology were carried out by Professor Dimitar Micev from the Faculty of Agriculture and Forestry in Skopje. The first temporary premises of the Institute of Microbiology were provided within the Deker's shed in the grounds of the former Institute of Hygiene. In 1949 the Institute was moved into the Institutes building [12, 14]. The first teacher of microbiology, elected in 1952, was Associate Professor Dr. Bogdan Karakašević [6]. He was appointed



Head of the Chair of Microbiology in 1952 while serving as Director of the Central Hygienic Institute in Skopje from 1952 to 1954. In 1958 an additional lecturer was elected Assistant Professor, Stefan Stevkov (Box 20).

**Box 20. Stefan Stevkov, Professor of Microbiology [1, 12, 20, 40]**



Prof. Dr. Stefan Stevkov started medical studies in Belgrade in 1939 and continued in Sofia from 1941–42, stopping studies because of the war. After the war, in 1946, he continued medical studies and graduated from the Belgrade FM in 1948. He joined the Central Hygiene Institute in Skopje and started specialization in microbiology and parasitology. In 1951, he moved to the Institute of Microbiology at the Skopje FM and completed specialization in 1955. During the specialization he spent six months in Zagreb, three months in Belgrade, and seven months at the Pasteur Institute in Paris, and in 1962, three months at the Pasteur Institute in Lyons, France.

Dr. Stevkov was appointed Assist. Lecturer in microbiology at the Skopje FM in 1954, and Assist. Professor in 1958, Assoc. Professor in 1965 (re-elected in 1973) and Professor in 1974.

Prof. Stevkov was appointed Director of the Institute and Head of the Chair of Microbiology and Parasitology from 1978–85.

Prof. Dr. Stefan Stevkov died in Skopje in 2003.

*11. Development of the Institute of Radiology*

The Institute of Radiology was established in parallel with the Skopje FM, in 1947, by transforming the previous Department of Rontgenology of the General County Hospital in Skopje. At first the Institute was located in a shed, auxiliary premises of the Surgery Clinic. In 1957, the Institute was moved to a new building and was supplied with new equipment. In 1963, the Institute of Radiology was divided into two departments – for radiotherapy and for

radio-diagnostics. Later, in 1979, these departments were transformed into two institutes: the Institute of Radiology and the Institute of Radiotherapy and Oncology, located in separate new buildings with modern equipment [9, 12]. The first Head of the Institute of Radiology, from 1947 to 1955, was Dr. Ivan Anastasov [7], who was the first honorary lecturer on the course in radiology, 1951–57. In 1957, the Chair of Radiology was created and Assist. Prof. Dr. Dimitar Tevčev was appointed as the first Head of the Chair (Box 21).

**Box 21. Dimitar Tevčev, Professor in Radiology [1, 12, 20, 41]**



Prof. Dr. Dimitar Tevčev started medical studies in Sofia and after two years stopped because of the war. In 1945 he continued to study in Belgrade for one year and moved to Sofia and graduated from the Sofia FM in 1947. He joined the Institute of Radiology at the Skopje FM in 1950 and started specialization in radiology. In 1954 he continued and completed specialization in Zagreb. He made professional visits to Stockholm, Moscow and Chicago. He introduced a number of new diagnostic methods and techniques to the Institute of Radiology, among them the modern contrast methods for angiography, trans-dermal cholangiography and trans-thoracic puncture for lung cancer diagnostics.

Dr. Tevčev was appointed Assist. Lecturer in radiology at the Skopje FM in 1955, and then Assist. Professor in 1957, Assoc. Professor in 1963 (re-elected in 1969) and Professor in 1971.

Prof. Tevčev was appointed Acting Head in 1958, and Director of the Institute of Radiology in 1960, serving this position until his retirement in 1983.

Prof. Dr. Dimitar Tevčev died in Skopje in 2006.

### 12. Development of the Institute of Pathological Anatomy

The Institute of Pathological Anatomy was founded in 1947, along with the founding of the FM in Skopje [12, 14]. Initially the Institute of Pathology performed its activities at the Institute of Hygiene and in the hospital chapel, and then moved into its own premises in the building of the institutes within the Faculty, which was built in 1948. The first Head of the Institute of Pathology was Associate Professor Mirko Knežević from Zagreb, who served in Skopje for only some months and returned to the Medical Faculty in Zagreb at the end of 1947 [5]. Then Associate Professor Dr. Dragoslav Miletić came from the Faculty of Medicine in Belgrade and devoted the rest of his professional potential and career to

the development of the Institute of Pathological Anatomy at the Faculty of Medicine in Skopje, till his retirement in 1978 [6]. In 1960 an additional lecturer, Dr. Epsa Urumova (Box 22), was elected Assistant Professor at the FM in Skopje.

The Institute of Pathological Anatomy played a significant role in delivering all types of education at undergraduate and postgraduate teaching and specialization levels. At the same time the Institute developed important diagnostic work, such as biopsy, autopsy and other types of analysis as an integral part of general medical practice in Macedonia and beyond. Special attention was devoted to research work as a factor in advancing the delivery of professional and teaching activities and health services.

#### Box 22. Epsa Urumova, Professor of Pathological Anatomy [1, 12, 20, 42]



Prof. Dr. Epsa Urumova started medical studies in Belgrade in 1940 and after a few years made a break because of the war. In 1945 she continued medical studies and graduated from the Sofia FM in 1948. She joined the Institute of Pathology at the Skopje FM and started specialization in pathological anatomy. She completed her specialization in 1955. During the specialization she spent six months at the Institutes of Forensic Medicine in Belgrade, Zagreb and Ljubljana, and later on in Zagreb, Dusseldorf and Koln, Germany, and Basel, Switzerland. She introduced a number of new methods at the Institute of Pathology.

Dr. Urumova was appointed Assist. Lecturer in Pathology at the Skopje FM in 1949, and then Assist. Professor in 1960, Assoc. Professor in 1966 (re-elected in 1972) and Professor in 1974.

Prof. Urumova was a collaborator with the Military Hospital in Skopje (1951–63), performing autopsies, and to the Dermatovenereology Clinic (1957–65) for pathological analyses of tissues. She was Honorary Lecturer at the Niš FM (1962–65). She served as Head of the Chair and Director of the Institute of Pathology, 1972–81.

Prof. Dr. Epsa Urumova died in Skopje in 2013.

### 13. Development of the Department of Dentistry

The Skopje FM was the basis for the formation of the Department of Dentistry, in 1959, and then the Faculty of Dentistry in Skopje in 1977, as well as the Faculty of Pharmacy in Skopje in 1977 [5–7, 43].

The Mouth, Dental and Jaw Diseases Clinic had been established in 1948 within the Skopje FM, and in 1951 an in-patient department within the Clinic was created with 12 hospital beds. The first Head of the Clinic was

Dr. Dimitar Smilev [7], who was elected Assistant Professor in 1952. A number of young dentists were employed and sent for further education and specialization to the educational centres for dentistry in Belgrade, Zagreb and Ljubljana. Prof. Smilev, with support from Prof. Dr. Joža Rant, from the Faculty of Dentistry in Ljubljana, and Prof. Dr. Laza Petrović, from the Faculty of Dentistry in Belgrade, led the process for the preparation of a proposal for establishing the Department of Dentistry within the Skopje FM.

In 1959, the Mouth, Dental and Jaw Diseases Clinic was transformed into the Department of Dentistry within the Skopje FM, which grew into the independent Faculty of Dentistry in Skopje in 1977/78 [8, 12, 43].

The first generation of 38 students at the Department of Dentistry was enrolled in 1959. From 1960, the lecturer responsible for the course in Dental Prosthetics was Assoc. Prof.

Dimitar Železarov (Box 23). The teaching process at the Department of Dentistry in Skopje was supported by certain lecturers from the Faculty of Dentistry in Belgrade (Professors Ivan Bikar, Milisav Teodosijević, Dragoljub Džaić and Milutin Kremžar) until more lecturers from Macedonia were educated and elected [6, 43].

**Box 23. Dimitar Železarov, Professor of Dentistry [12, 17, 43, 44]**



Prof. Dr. Dimitar Železarov started medical studies in 1921 in Graz, then moved to Frankfurt and, later on, to Vienna, where he graduated from the Vienna FM in 1927. He continued his stay in Vienna with specialization at the Institute of Dentistry, and in 1929 completed this and became a specialist in oral and dental diseases. From 1929–45 he worked in a private dental practice in Skopje. In 1945 he moved to Prilep Health Station for one year then returned to Skopje, being appointed teacher in the Secondary Medical School for Dental Technicians in Skopje. He was elected Assoc. Professor for the course in Dental Prosthetics at the Skopje FM in 1960 (re-elected in 1966), and Professor in 1970.

Prof. Železarov was appointed Acting Director of the Dentistry Clinic in 1955 but served in the position only one year, returning to the teaching process at the School for Dental Technicians in Skopje. He is author of some 10 teaching handbooks in the field of Dentistry and Dental Prosthetics.

Prof. Dr. Dimitar Železarov died in Skopje in 1979.

As well as the above-mentioned 23 leading teachers from Macedonia of the second group (elected from 1955–60) and 15 teachers and founders of the Skopje FM who made a key contribution to the establishment and/or initial development of certain departments, institutes and clinics of the Skopje FM in the period 1947–60, many other professional practitioners and auxiliary teaching staff from Macedonia participated in the work of the various institutes and clinics and in the realization of, first of all, practical teaching activities.

### Discussion

The second group of 23 young lecturers, elected assistant professors for the first time at the Skopje FM in the period from 1955–60, made a remarkable contribution to the further development of certain departments/chairs and organizational units (clinics and institutes) and to the overall healthcare professional, research and educational activities at the Skopje FM. Most of them completed their medical studies

at the Belgrade FM (14 or 60%), Sofia FM (5 or 22%), Zagreb FM (3 or 13%), and just one of them at the Vienna FM (Table 1).

In the early 1960s, just in the three-year period 1961–63, an additional 16 assistant professors were elected at the Skopje FM and some of them had graduated from the Skopje FM (Table 2). Later on, in the 1960s and 1970s, the Skopje FM was the main source and self-supplier of graduates who were recruited as its own academic and scientific staff.

Of the first generation of students who enrolled at the Skopje FM in 1947 and graduated from it in 1953 and later, some 20 doctors received teaching titles at the same Faculty during the 1960s [4, 13, 61, 62]. Thus the most reliable route for progress in the future and for further development of the health system was provided, while teaching and educational activities and research with new achievements and lasting results confirmed the reputation of the Skopje FM, of which Macedonia is proud.

Table 2

*Doctors from Macedonia who were for the first time elected lecturers at the Faculty of Medicine in Skopje in the period from 1961–63 [45–60]*

Family and first name	Place and year of birth	Place and year of graduation	Elected assistant professor	Elected (re-elected) assoc. professor	Elected professor
Kepeski Dimko	Prilep, 1918	Belgrade, 1948	1961	1967 (+1972)	1977
Kovačev Vančo	Radoviš, 1927	Skopje, 1954	1961	1966 (+1972)	1973
Nikodijević Branislav	Skopje, 1929	Zagreb, 1954	1961	1967 (+1973)	1977
Ruben Remon	Skopje, 2011	Graz, 1934	1961	1967 (+1972)	1977
Tavčiovski Ivan	Prilep, 1923	Belgrade, 1953	1961	1967 (+1973)	1977
Anastasov Mitruš	Probištip, 1918	Belgrade, 1947	1962	-	-
Kotevski Ljubomir	Skopje, 1923	Belgrade, 1951	1962	1967 (+1972)	1977
Minčev Kiril	Kavadarci, 1922	Belgrade, 1950	1962	1967 (+1972)	1977
Serafimov Kočo	Tetovo, 1922	Belgrade, 1949	1962	1967 (+1973)	1977
Tofović Petar	Skopje, 1920	Belgrade, 1948	1962	1967 (+1972)	1977
Babamova Aleksandra	Strumica, 1921	Zagreb, 1948	1963	1970 (+1976)	1979
Grozdev Ljupčo	Štip, 1930	Skopje, 1955	1963	1969 (+1978)	1980
Karanfilski Borislav	Kumanovo, 1928	Skopje, 1955	1963	1968 (+1974)	1977
Petruševska Marika	Ohrid, 1925	Belgrade, 1949	1963	1968 (+1975)	1977
Taškova Divna	Kumanovo, 1921	Belgrade, 1948	1963	1970 (+1976)	1979
Čumbelić Nada	Veles, 1921	Zagreb, 1947	1963	1968 (+1974)	1979

Up to the end of 2012, 17,112 students had been enrolled at the Skopje FM, of whom 11,109 had graduated. Shortly before the formation of the Skopje FM, in 1947, the number of medical doctors in the PR Macedonia was about 120, and the number of nurses was the same for a population of almost 1.2 million, or 1 doctor and 1 nurse per 10,000 inhabitants. Over the past 66 years Skopje FM has been the main source of doctors for continuous transfusion to the health system, for the development of health services and provision of the highest medical service in R. Macedonia, as well as for the development of scientific research work, [1, 3–5, 10, 61, 63]. From the early 1950s the number of medical doctors employed in the Republic of Macedonia in the health services, in both the public and private sectors, was constantly increasing so that in 2011 the number of medical doctors reached 5,649 (3564 of these, or 63%, specialist physicians). The supply ratio of medical doctors to population in the Republic of Macedonia, which in 2011 was about 2.05 million, was 1 medical doctor per 363 inhabitants, and the ratio of doctors and nurses was 1: 2.3 in 2011 (Tables 3 and 4).

The Skopje FM was and continues to be Alma Mater for other educational institutions in the field of biomedicine in R. Macedonia. The Skopje FM was the basis for the formation of the Department of Dentistry, in 1959, and

then the Faculty of Dentistry in Skopje in 1977. In the same year, 1977, the Faculty of Pharmacy in Skopje was established, too [5–7, 43]. The shortfalls in educated personnel were steadily reduced in the dental services from the 1960s and in the pharmaceutical services and pharmacies from the 1980s (Table 5).

A number of health status indicators related to infectious diseases and morbidity and mortality in general, and quality of life, present remarkable improvements, and life expectancy at birth has increased from 47.05 (males 45.9; females 48.2) in 1948 to 75.0 (males 73.0; females 77.1) in 2012 [64–66].

Medical science in R. Macedonia today fits completely into modern European and world trends. The Skopje FM has experienced a huge staff increase and today has highly-specialized personnel and modern equipment. A total number of 19 teachers began the educational activities in 1947, while 66 years later, in 2012/13, the number of teachers was 233 (150 full professors, 38 associate professors and 45 assistant professors). That is the impressive intellectual, educational and scientific potential of the Faculty.

This paper, fourth in the series in the field of medicine in Macedonia associated with the beginnings of MF-Skopje, printed in the MASA Journal *Prilozi – Contributions*, com-



pliments the entirety of all teachers in the period 1947–60, most of them doctors, participating in the establishment and initial development of MF-Skopje. Our research, published in

the four papers, should stimulate physicians in Macedonia to devote much more to research in the field of medical history in Macedonia.

Table 3

*Physicians and other health workers employed in health organizations in the public sector in R. Macedonia in the period 1953–2011*

Profiles of health workers		1953	1961	1971	1981	1991	2001	2011
Total number of doctors		352	681	1519	2809	4487	4459	3509
Out of that	Specialists	133	265	689	1422	2296	2894	2607
	On specialization	34	33	126	319	610	516	296
	General practitioners	185	383	550	1016	1581	1049	606
Doctors in hospital health care	Number	187	394	495	793	1337	1555	1790
	% from total number of doctors	53.1	57.9	32.6	28.2	29.8	34.9	51.0
Nurses and other health workers with high level education		-	9	366	597	566	726	8137
Nurses and other health workers with mid level education		874	1569	3462	6479	9614	9827	
Auxiliary health workers (low level of education)		1003	680	1331	1159	891	509	458
Health co-workers		-	-	-	-	231	421	920
Administrative workers and technical personnel	Broj	1555	2139	3847	4991	5503	5830	4918
	%	40.9	38.9	35.9	29.8	24.1	25.1	26.7
Total number of employed in the health institutions (public sector)		3804	5493	10714	16739	22817	23206	18409
Population per one	Doctor (total)	3706	1973	1209	697	454	456	587
	General practitioner	7051	3671	2995	1879	1290	1940	2282
	Health workers with mid and high level education	1493	891	430	270	200	193	253
Health workers with mid and high level of education per 1 doctor		2.5	2.3	2.5	2.6	2.3	2.4	2.3

Source: Institute of Public Health, Skopje  
State Statistical Office of R. Macedonia

Table 4

*Health workers in the private health sector institutions in R. Macedonia in the period 2001–11*

Profiles of health workers		2001	2004	2011
Doctors	Total	481	641	2140
	General practitioners	260	365	1183
	Specialists	221	276	957
Stomatologists	Total	278	468	1254
	General stomatology	226	379	981
	Specialists	52	89	273
Pharmacists		259	430	683
Other with university level education		29	47	184
Total number of workers with university level education		1047	1586	4261
Health workers with mid and high level education		547	767	4508
TOTAL		1621	2353	9053

Source: Institute of Public Health, Skopje

Table 5

*Health workers in the Dental and Pharmaceutical services and pharmacies in the public health sector in R. Macedonia in the period 1953–2011*

Profiles of health workers		1953	1961	1971	1981	1991	2001	2011
Stomatologists, total number		14	47	251	553	1118	1125	368
Out of that	with specialisation	-	5*	38	154	271	411	213
	without specialisation	14	42	214	373	777	689	155
Dentists with mid and high level education		90	182	250	218	121	40	0
Dental technicians		69	172	316	406	448	378	101
Popula- tion per one	Stomatologist	93180	29915	6563	3452	1824	1809	5594
	Dentist with mid and high level education	14495	10733	6589	8758	16850	50872	-
Dental technicians with mid and high level education per 1 stomatologist		6.4	5.2	1.3	0.8	0.4	0.3	0.27
Pharmacists total number		102	120	163	155	393	309	99
Out of that	with specialisation	-	6	16	30	42	61	41
	without specialisation	102	114	147	125	351	248	58
Pharmaceutical technicians		132	189	441	495	-	407	84
Population per 1 pharmacist		12789	11717	10106	12317	5188	6585	20793
Pharmaceutical technicians per 1 pharmacist		1.3	1.6	2.7	3.3	-	1.7	0.85

\* on specialisation

Source: Institute of Public Health, Skopje

State Statistical Office of R. Macedonia

Our predecessors, with great enthusiasm, sacrifice and constant work managed to provide a strong impetus for the initial and further development of the Skopje FM and medicine to a level recognized in Europe and beyond. Their legacy for all subsequent generations is to continue the tireless work and high professional commitment to provide all citizens in Macedonia with the best of medicine in terms of modern and quality health care in accordance with international standards. There is still much to explore from each area of the history of medicine in Macedonia. We now restrict ourselves to the beginnings and initial development of the Skopje FM in the period 1947–60.

#### Limitations of the study

More detailed data about some of the doctors and lecturers from Macedonia are not available within the sources used for this study. As the primary and most reliable sources, reports from Bulletins of the University about the election of lecturers at the Skopje FM were available from 1957, when the first issue of the *Bulletin* of the University of Skopje was published. Some data and photographs were collected from descendents and relatives or from a few still living professors. Nevertheless, the

data we have collected from various alternative sources provide a clear picture of the important contribution of the second group of doctors and lecturers from Macedonia, elected as assistant professors from 1955 to 1960, to the further development of the Faculty of Medicine and the Department/Faculty of Dentistry in Skopje in the period from 1947 to 1960 and beyond.

#### Conclusion

Establishing the Skopje FM in 1947 was an exceptional event of crucial importance for the development of educational, scientific and highly specialized health care in R. Macedonia. In the past sixty-six years the Skopje FM has made and continues to make a major contribution to the creation of highly specialized medical staff for the health care system, as well as to the provision of the best available health care for the population of the Republic of Macedonia and beyond. From its foundation until the present day the educational role of the Skopje FM has been essential in the education of more than 11,000 doctors in Macedonia. With the development and exchange of scientific research and findings, the Skopje FM, with its institutes and clinics, has grown into the leading health centre in Macedonia for the scienti-

fic study of health problems in general and those of special interest in the national pathology, with adequate application of modern methods of diagnosis and treatment, based on the principles of evidence-based medicine.

The Skopje FM today is a high-level medical, educational, scientific and health care institution within the Ss. Cyril and Methodius University in Skopje, and carries out its complex health work activities through higher education, super-specialist clinical care, scientific research, and university-level specialist training in the medical sciences and related fundamental fields.

The Skopje FM owes immense gratitude to all 38 doctors and lecturers from Macedonia and for the generous help extended, first of all, from the teachers who came from the medical faculties in Belgrade, Zagreb and Ljubljana. In addition to the first generation of teachers from Macedonia, the faculty staff from other republics in the FPR Yugoslavia and from other countries in Europe contributed a great deal to the establishment and initial development of the Skopje FM. Besides the first group of 15 lecturers, especially great appreciation goes to the second group of 23 teachers from Macedonia, in various fields of medicine, who, together with the teachers and other professional staff from Serbia, Croatia and other republics in the FPR Yugoslavia and countries in Europe, invested their efforts, enthusiasm, creativity, expertise and professionalism in the establishment and initial development of the Skopje FM. They marked the history of medicine in Macedonia and enabled the next generations of doctors and teachers to continue their mission to help and improve the health status of the population in this region and to make life easier and happier. Thus the Skopje FM and Macedonia are indebted to all those pioneers and *corypheés* of medicine for their contribution to the establishment and development of the Skopje FM and the development of medical science and health services in the Republic of Macedonia.

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#### REFERENCES

1. Lazarevski M, Nikodijević B, Velkov K, Čaparoski R, Glavaš E. Establishment and 40-year development of the Faculty of Medicine in Skopje (1947–1987). [In Macedonian]. In: Lazarevski M., Editor-in-Chief. Faculty of Medicine in Skopje 1947–1987. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1987; 15–50.
2. Nikodijević B. Establishment of the Faculty of Medicine in Skopje in 1947. [In Macedonian]. In: Nikodijević B., Antova N., Šumkovski M., eds. Almanac of the First Generation of Students at the Faculty of Medicine in Skopje 1947–1953. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1997; 11–19.
3. Polenaković M. Forty Years since the Establishment of the Association of Societies of Doctors in Macedonia. [In Macedonian]. Macedonian Medical Review 1985; 39(3–4): 77–86.
4. Stojčevski T, Šumkovski M, Nikodijević B. Contribution of the first generation of doctors to the development of the health services in Macedonia and of the Faculty of Medicine in Skopje. [In Macedonian]. In: Nikodijević B., Antova N., Šumkovski M., eds. Almanac of the First Generation of Students at the Faculty of Medicine in Skopje 1947–1953. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1997; 44–52.
5. Polenakovic M, Donev D. Contributions of the doctors from Croatia in establishing and initial development of the Faculty of Medicine in Skopje, Republic of Macedonia. Prilozi-Contributions, Sec. Biol. Med. Sci., MASA 2011; 32(2): 331–58 Available from: <http://manu.edu.mk/prilozi/26p.pdf>.
6. Donev D, Polenaković M. Contributions of the doctors from Serbia to the establishment and initial development of the Faculty of Medicine in Skopje,

- Republic of Macedonia. Prilozi-Contributions, Sec. Biol. Med. Sci., MASA 2012; 33(1): 319–46. Available from: <http://www.manu.edu.mk/prilozi/jully2012/CONTRIBUTIONS%20OF%20DOCTORS%20FROM%20SERBIA.pdf>.
7. Donev D, Polenakovic M. Contributions of the doctors from Macedonia to the establishment and initial development of the Faculty of Medicine in Skopje, Republic of Macedonia. Prilozi-Contributions, Sec. Biol. Med. Sci., MASA 2012; 33(2): 239–77. Available from: [http://www.manu.edu.mk/prilozi/2012\\_2/20d.pdf](http://www.manu.edu.mk/prilozi/2012_2/20d.pdf).
  8. Žanteva-Naumoska M, Dimitrijević M, Georgievskai-smail LJ, Maleska-Ivanovska V, Spasovski M, Dimitrov G, etc. Faculty of Medicine in Skopje 1947–2007 (Documents). [In Macedonian]. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1997; 201.
  9. Maleska-Ivanovska V, Žanteva-Naumoska M, eds. 60 Years Faculty of Medicine, Ss Cyril and Methodius University in Skopje: 1947–2007. [In Macedonian]. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1997; 192.
  10. Bogoev M. Welcoming Speech at the Golden Jubilee of the Medical Faculty in Skopje ceremony, March 17, 1997. [In Macedonian]. In: Markovski A., ed. 50 Years of the Faculty of Medicine in Skopje. Faculty of Medicine, Ss Cyril and Methodius University, in Skopje. Skopje, 1998; 9–13.
  11. Antevski D. Spatial conditions at the Faculty of Medicine in Skopje in the period from 1947–1953. [In Macedonian]. In: Nikodijević B., Antova N., Šumkovski M., eds. Almanac of the First Generation of Students at the Faculty of Medicine in Skopje 1947–1953. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1997; 20–4.
  12. Lazarevski M, Nikodijević B, Velkov K, Čaparovski R, Glavaš E. Development of the institutions within the Faculty of Medicine in Skopje. [In Macedonian]. In: Lazarevski M., Editor-in-Chief. Faculty of Medicine in Skopje 1947–1987. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1987; 183–345.
  13. Trajkov D, Petličkovski A, Strezova A, Spiroski M. Sixty Years of the Faculty of Medicine in the Republic of Macedonia (1947–2007). *Maced J Med Sci* 2008; 1(1): 3–12. doi: 10.3889/MJMS.1857-5773.2008.0011. Available from: [http://www.mjms.ukim.edu.mk/Online/MJMS\\_2008\\_1\\_1/MJMS.1857-5773.2008.0011.pdf](http://www.mjms.ukim.edu.mk/Online/MJMS_2008_1_1/MJMS.1857-5773.2008.0011.pdf) Accessed: Oct. 6, 2011.
  14. Markovski A, ed. 50 Years of the Faculty of Medicine in Skopje. [In Macedonian]. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1998; 144.
  15. Karanfilski B. Our first teachers. [In Macedonian]. In: Nikodijević B., Antova N., Šumkovski M., eds. Almanac of the First Generation of Students at the Faculty of Medicine in Skopje 1947–1953. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1997; 16–19.
  16. Stojčevski T, Nikodijević B. The first lecturers at the Faculty of Medicine in Skopje. [In Macedonian]. In: Nikodijević B., Antova N., Šumkovski M., eds. Almanac of the First Generation of Students at the Faculty of Medicine in Skopje 1947–1953. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1997; 53–67.
  17. Ristovski B, Editor-in-Chief. Macedonian Encyclopedia, Part I. [In Macedonian]. Macedonian Academy of Sciences and Arts, Skopje. Skopje, 2009; 812.
  18. Tofoski J, ed. 60 Years Macedonian Medical Association 1945–2005. [In Macedonian]. Macedonian Medical Association, Skopje, 2008; 378.
  19. Čakmakov A, Miletić D, Referees. Report on re-election of associate professor in otorhinolaryngology (Aleksandar Andreevski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 97, Sept 1966; 1–12.
  20. Ristovski B, Editor-in-Chief. Macedonian Encyclopedia, Part II. [In Macedonian]. Macedonian Academy of Sciences and Arts, Skopje. Skopje, 2009; 813–1671.
  21. Andreevski A, Georgiev K, Stefanovski S, Referees. Report on re-election of professor in otorhinolaryngology (Aleksandar Hadži-Boškov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 203, Nov 1973; 32–9.
  22. Arsov D, Tadžer I, Miovski D, Referees. Report on election of professor in internal medicine (Penčo Davčev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 135, 1969; 2–11.
  23. Arsov D, Miletić D, Muratovski G, Referees. Report on election of associate professor in internal medicine (Dimitar Hrisoho) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 75, Aug-Sept 1964; 10–7.
  24. Arsov D, Davčev P, Miletić D, Referees. Report on election of associate professor in internal medicine (Jonče Nedelkovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 77, Nov 1964; 11–5.
  25. Arsov D, Miletić D, Tadžer I, Referees. Report on election of professor in internal medicine (Radovan Perčinkovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 142, May 1970; 39–50.
  26. Tadžer I, Arsov D, Andreevski A, Referees. Report on election of professor in paediatrics (Hristo Duma) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 159, Aug 1971; 15–21.
  27. Tadžer I, Arsov D, Andreevski A, Referees. Report on election of professor in paediatrics (Avram Sadikario) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 159, Aug 1971; 22–37.
  28. Duma H, Sadikario A, Perčinkovski R, Referees. Report on election of professor in paediatrics (Dušan



- Teodosievski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 203, Nov 1973; 24–31.
29. Arsov D, Dragoević B, Perčinkovski R, Referees. Report on election of associate professor in neurology and psychiatry (Petar Fildiševski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 68, Jan 1964; 1–15.
  30. Arsov D, Fildiševski P, Andreevski A, Referees. Report on election of associate professor in neurology and psychiatry (Stefan Stefanovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 75, Aug-Sept 1964; 1–9.
  31. Panovaki J, Šukarov L, Andreevski A, Referees. Report on election of professor in surgery (Krstó Georgiev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 173, May 1972; 11–19.
  32. Andreevski A, Miletić D, Tadžer I, Referees. Report on election of professor in surgery (Jovan Panovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 159, Aug 1971; 7–14.
  33. Kostić B, Karakašević B, Andreevski A, Referees. Report on election of assistant professor in hygiene (Nikola Georgievski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 38, Apr 1961; 1–4.
  34. Stankovic I. Who is who in Yugoslavia – 1 Doctors. Association of the Societies of Physicians in Yugoslavia, Belgrade, 1968; 127.
  35. Šukarov L, Tadžer I, Andreevski A, Referees. Report on election of professor in gynecology and obstetrics (Aleksandar Lazarov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 142, May 1970; 1–19.
  36. Šukarov L, Tadžer I, Andreevski A, Referees. Report on election of professor in gynecology and obstetrics (Metodija Stankovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 142, May 1970; 20–38.
  37. Milošević B, Tadžer I, Andreevski A, Referees. Report on re-election of associate professor in gynecology and obstetrics (Ljubomir Šukarov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 134a, Jan 1969; 1–11.
  38. Andreevski A, Georgiev K, Hrisoho D, Referees. Report on election of professor in ophthalmology (Dimitar Miovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 200, Oct 1973; 3–13.
  39. Arsov D, Karakašević B, Tadžer I, Referees. Report on election of professor in infectious diseases (Save Mironski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 170, Jul 1972; 9–20.
  40. Karakašević B, Davčev P, Muratovski G, Referees. Report on election of associate professor in microbiology (Stefan Stefkov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 73, Jun 1964; 1–7.
  41. Bošnjaković B, Arsov D, Referees. Report on election of associate professor in radiology (Dimitar Tevčev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 66, Oct-Noem 1963; 25–30.
  42. Duma H, Georgiev K, Šukarov L, Referees. Report on election of professor in pathological anatomy (Epsa Urumova) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 215, June 1974; 25–33.
  43. Nakova M, Editor-in-Chief. Fifty Years the Faculty of Dentistry in Skopje, 1959–2009. [In Macedonian]. Faculty of Dentistry Ss Cyril and Methodius University in Skopje, 2009; 232.
  44. Verner R, Arsov D, Bikar I, Referees. Report on election of professor in dentistry (Dimitar Železarov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 143, May 1970; 25–32.
  45. Tofović P, Serafimov K, Sadikario A, Andreevski A, Lazarov A, Referees. Report on election of professor in orthopedics (Dimko Kepeski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 285, Dec. 1977; 48–67.
  46. Tadžer I, Perčinkovski R, Nedelkovski J, Referees. Report on election of professor in physiology (Vančo Kovačev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 203, Nov 1973; 8–23.
  47. Tadžer I, Davčev P, Fildiševski P, Perčinkovski R, Kovačev V, Referees. Report on election of professor in pharmacology (Branislav Nikodijević) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 267, Apr 1977; 206–20.
  48. Perišić S, Perčinkovski R, Sadikario A, Fildiševski P, Hadži-Boškov A, Referees. Report on election of professor in dermatovenerology (Remon Ruben) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 262, Feb. 1977; 52–65.
  49. Magjanović N, Njemirovski Z, Smilev D, Andreevski A, Karakašević B, Referees. Report on election of professor in dental pathology and therapy (Ivan Tavčiovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 265, March 1977; 132–44.
  50. Dragojević B, Čakmakov A, Referees. Report on election of assistant professor in surgery (Mitruš Anastasov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 48, Feb. 1962; 71–9.
  51. Davčev P, Perčinkovski R, Hrisoho D, Nedelkovski J, Teodosievski D, Referees. Report on election of professor in internal medicine (Ljubomir Kotevski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 262, Feb. 1977; 124–51.
  52. Davčev P, Teodosievski D, Nedelkovski J, Tevčev D, Hadži-Boškov A, Referees. Report on election of professor in physiology (Kiril Minčev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 265, March 1977; 20–8.

53. Panovski J, Miovski D, Davčev P, Andreevski A, Fildiševski P, Referees. Report on election of professor in surgery (Kočo Serafimov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 262, Feb. 1977; 106–23.
54. Panovski J, Miovski D, Davčev P, Andreevski A, Fildiševski P, Referees. Report on election of professor in surgery (Petar Tofović) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 262, Feb. 1977; 152–72.
55. Tadžer I, Nedelkovski J, Referees. Report on election of associate professor in biochemistry (Aleksandra Babamova-Vilarova) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 119, Jul 1968; 13–21.
56. Urumova E, Tadžer I, Šukarov L, Karanfilski B, Mironski S, Referees. Report on election of professor in pathological anatomy (Ljupčo Grozdev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 283, Nov. 1977; 1–10.
57. Tadžer I, Davčev P, Fildiševski P, Kovačev V, Urumova E, Referees. Report on election of professor in pathological physiology (Borislav Karanfilski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 265, March 1977; 1–19.
58. Urumova E, Tadžer I, Andreevski A, Teodosievski D, Kovačev V, Referees. Report on election of professor in biochemistry (Marika Petruševska) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 283, Nov 1977; 103–9.
59. Tadžer I, Nedelkovski J, Referees. Report on election of associate professor in biochemistry (Divna Taškova-Kostadinova) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 119, Jul 1968; 1–6.
60. Tadžer I, Nedelkovski J, Referees. Report on election of associate professor in biochemistry (Nada Čumbelić-Gigova) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 119, Jul 1968; 7–12.
61. Donev D. Revitalization of Academic Medicine in Macedonia – An Urgent Need. *Croat Med J* 2004; 45(6): 677–83. PMID: 15578799 [PubMed – indexed for MEDLINE]. Available from: <http://www.cmj.hr/2004/45/6/15578799.htm> Accessed: Oct 6, 2012.
62. Faculty of Medicine, Skopje. Rule-book for internal relations and activities of the Faculty of Medicine Ss Cyril and Methodius University in Skopje. *University Newsletter* 2009; 121: 19.
61. Žanteva-Naumoska M, Polenaković M. Sixty years since the foundation of the Medical Faculty at the Ss Cyril and Methodius University in Skopje, R. Macedonia (1947–2007). *Prilozi/Contributions, Sec. Biol. Med. Sci., MASA*, 2008; 29(1): 303–7.
62. Šumkovski M. Demonstrators from the first generation. [In Macedonian]. In: Nikodijević B., Antova N., Šumkovski M., eds. *Almanac of the First Generation of Students at the Faculty of Medicine in Skopje 1947–1953*. Faculty of Medicine, Ss Cyril and Methodius University, Skopje. Skopje, 1997; 29–30.
64. Federal Institute for Statistics of the Socialist Federative Republic of Yugoslavia. *Statistical Yearbook of Yugoslavia 1979*. Federal Institute of Statistics of the SFR Yugoslavia, Belgrade, 1979.
65. Republic Institute for Statistics of the Socialist Republic of Macedonia. *Statistical Yearbook of SR Macedonia 1978*. Republic Institute of Statistics of SR Macedonia, Skopje, 1979.
66. State Statistical Office of the Republic of Macedonia. *Statistical Yearbook of Macedonia 2013*. State Statistical Office of the Republic of Macedonia, Skopje, 2013.

## Резиме

### ДОКТОРИ-НАСТАВНИЦИ ОД МАКЕДОНИЈА КОИ СЕ ИЗБРАНИ ПРВ ПАТ НА МЕДИЦИНСКИОТ ФАКУЛТЕТ ВО СКОПЈЕ ВО ПЕРИОДОТ ОД 1955–1960

Дончо Донеv<sup>1</sup>, Момир Поленаковиќ<sup>2</sup>

<sup>1</sup> Институт за социјална медицина, Медицински факултет, Универзитет Св. Кирил и Методиј во Скопје, Р. Македонија

<sup>2</sup> Македонска академија на науките и уметностите, Скопје, Р. Македонија

*Цел:* Да се прикаже група млади доктори од Македонија, кои биле избрани во наставници на Медицинскиот факултет во Скопје, Македонија, во периодот од 1955–1960.

*Методи:* Ретроспективна студија базирана на архивски материјали, енциклопедии и jubилејни публикации на Медицинскиот и Стоматолошкиот факултет во Скопје, други релевантни извори на информации, и преглед на релевантна литература.

*Резултати:* Медицинскиот факултет во Скопје е основан во 1947 г., а првиот состанок на Советот на наставниците бил одржан на 17.III.1947 г. Првата генерација од 153 студенти се запишале есента 1947 г., а првото предавање е одржано на 3.XI.1947 година.

Покрај 15 доктори од Македонија – наставни кадри, кои биле именувани во периодот од 1947–54 и учествувале во основањето и иницијалниот развој на Медицинскиот факултет во Скопје, дополнително 23 наставници од Македонија биле избрани во доценти во периодот од 1955–60. Тие 38 пионери и корифеи на медицината во Македонија играле важни улоги во

основањето и/или во натамошниот развој на голем број катедри, институти и клиники во новоформиранит Медициниски факултет во Скопје во 1947 г. и во првите 10–15 години од неговиот развој, до 1960 г. и потоа.

*Заклучок:* Медицинискиот факултет во Скопје, основан во 1947 г., одигра суштествена улога за едукација на медицински стручњаци, за подобрување на крајно влошената здравствена состојба на населението и за севкупниот натамошен развој на здравствениот систем и обезбе-

дувањето на здравствената заштита на населението во Македонија. Придонесот на втората група од 23 доктори-наставници од Македонија за натамошниот развој на Медицинискиот факултет во Скопје, во периодот од 1950-тите и потоа, беше од големо значење.

**Клучни зборови:** факултет, медицински; основање, иницијален развој; едукација, медицинска; настава; Република Македонија; доктори од Македонија.

