

HISTORICAL NOTE

CONTRIBUTIONS OF DOCTORS FROM MACEDONIA TO THE ESTABLISHMENT AND INITIAL DEVELOPMENT OF THE FACULTY OF MEDICINE IN SKOPJE, REPUBLIC OF MACEDONIA

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Abstract: *Aim:* To present an overview of the circumstances, initiatives and milestone activities of the process and actors, with special emphasis on the contribution of doctors from Macedonia to the establishment and initial development of the Faculty of Medicine in Skopje, Macedonia, in the period 1947–60 and beyond.

Method: A retrospective study based on archive materials, encyclopedias 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.

About 15 doctors from Macedonia – faculty staff in the period from 1947–54 – had joined the initiative of the Government of Macedonia for establishing the Faculty of Medicine in Skopje, and an additional 22 lecturers from Macedonia, who had been elected in the period from 1955–60, supported its initial development. They played leading roles in the creating and/or 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.

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 pro-

vision of health care to the population of Macedonia. The contribution of the doctors from Macedonia to the establishment and initial development of the Faculty of Medicine in Skopje, during the period 1947–60 and beyond, was dominant and essential.

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 exhausted predominantly agricultural population, a culture in regression and poor economic conditions, the healthcare services in PR Macedonia were underdeveloped and very weak with only 120 doctors and the same number of nurses for about 1,200,000 inhabitants or 1 doctor and 1 nurse per 10,000 population. The health status of the population was very poor with neglected pathology, numerous endemic spots and high morbidity and mortality, especially of the newborn, infants and small children [1–5].

The shortcomings and main reasons and needs for establishing the Faculty of Medicine in Skopje, the capital of PR Macedonia, after the Second World War, are presented in Box 1.

In such conditions, in 1945, the gigantic battle against poverty, diseases, centuries-long regression, and for the affirmation of a national identity and autonomy of PR Macedonia began. An essential need was to start with the intensive education of medical professionals, qualified and educated medical staff that PR Macedonia badly lacked at that time [1–2, 7].

These shortcomings and problems had to be overcome, centuries had to be bridged, and the PR Macedonia had to become not only *de jure*, but *de facto* an equal member of the fraternal community of the Federal People's Republic (FPR) of Yugoslavia.

The existing medical faculties in Belgrade, Zagreb and Ljubljana alone could not provide the necessary medical personnel to solve the problem of the lack of physicians and other medical personnel in the FPR Yugoslavia since the other republics also lacked physicians. Thus, an imperative was imposed for the establishment of two new medical faculties, in Skopje and in Sarajevo [1, 2, 10].

In 1946, the Government of the PR Macedonia, besides numerous operative decisions, reached an important strategic decision of long-term significance for the improvement of the health status of the population and development of the health services and health system in Macedonia – to establish a Medical Faculty in Skopje.

<p>Box 1. Main reasons and needs for establishing the Faculty of Medicine in Skopje, PR Macedonia in 1947 [1–3, 5–9]</p>
<p>Unfavorable population vital statistics indicators:</p> <ul style="list-style-type: none"> • Total population in Macedonia (Census 1948): 1,152,986; agricultural population 70.6% • Life expectancy at birth (1948): males 45.9; females 48.2 years • Birth rate: 35 per 1,000 population • Mortality rate: 13.7 per 1,000 population (95% of the dead hadn't been seen by a doctor before death) • Population growth rate: 21.3 per 1,000 population; average members per family 5.3
<p>Poor health status indicators:</p> <ul style="list-style-type: none"> • Mortality rate: 13.7 per 1,000 population • Population growth rate: 21.3 per 1,000 population • Infant mortality rate (1949): 136.1 per 1000 live births • 300,000 infected with malaria each year • 30,000 diseased with active tuberculosis • High morbidity from typhus and paratyphus, cholera and other diarrhoeal diseases • High morbidity from diphtheria, pertussis and other acute communicable diseases in children • High morbidity/mortality from anthrax, tetanus, rabies • High morbidity from skin and sexually transmissible diseases • High morbidity from goitre, nephropathy and other endemic diseases
<p>Weak network of health services in Macedonia:</p> <ul style="list-style-type: none"> • Dispensaries: 3 (2 for children, one for TBC) • Outpatient offices: 56 (50 GPs and specialists, 6 for school-children) • Dental surgeries: 7 • Anti-malarial stations: 18 • Hospitals: 9; Hospital beds: 868/ Hospital beds per 1,000 population: 0.72 • Public health institutes: 1
<p>Small number of doctors and other health personnel:</p> <ul style="list-style-type: none"> • Doctors: 120 or 1 doctor per 10,000 population • Pharmacists: 96 or 1 pharmacist per 12,000 population • Nurses: 120 or 1 nurse per 10,000 population
<p>Shortage of medical faculties and doctors in FPR Yugoslavia in 1945:</p> <ul style="list-style-type: none"> • There were only three medical faculties (in Belgrade, Zagreb and Ljubljana) • Total number of physicians was 3,000 or one physician per 5,300 inhabitants
<p>Need to create medical faculty as educational, healthcare and research institution in PR Macedonia:</p> <ul style="list-style-type: none"> • to initiate the intensive education of medical professionals • the improvement of the health status of the population • need for profound examination of the national pathology, especially of infectious diseases • development of the health services and health system in Macedonia

Aim: This is the third 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, for the first and second article, and the doctors and lecturers from Macedonia, for this the third article) to the establishment and initial development of the Faculty of Medicine in Skopje, PR Macedonia, in the period 1947–60 [7, 8]. The aim of this study is to analyse available archive materials and data and present an overview of the circumstances, milestone activities and actors, with special emphasis on the contribution of doctors from Macedonia to the establishment and initial development of the Faculty of Medicine, as well as the Department/Faculty of Dentistry in Skopje, Macedonia, in the period 1947–60 and beyond.

Methods

Various kinds of documentation, first of all the reports from Bulletins of the University in Skopje for the election of the 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, 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 real activities for establishing a Medical Faculty in Skopje began in 1946 when the Ministry of Public Health of the Government of the PR Macedonia (by virtue of Act no. 4745 of August 30, 1946) addressed the Committee of Public Health of the Government of FPR Yugoslavia with a request to undertake action for the foundation of a Medical Faculty in Skopje [7, 11].

All the formal legal, professional and organizational preparations for establishing the Faculty of Medicine (FM) in Skopje were completed in a period of about six months, from Sept 1946 to March 1947, and the way was clear for the final opening of the Faculty. The main actors, milestone activities of this process, decisions and documents created, and the output results of those activities, are presented in Table 1.

Table 1

The main actors, milestone activities, decisions and documents created, and outputs of the process for establishing the Faculty of Medicine in Skopje [1, 2, 9, 11, 13]

Actor	Decision/Document/ Report	Output
Committee of Public Health of the Government of FPR Yugoslavia	By virtue of Act no. 120 of Sept. 26, 1946	Creation of the Commission of 10 members (two of them were from Macedonia) to explore the possibilities for establishing a FM in Skopje
Commission for exploring the possibilities of establishing a Faculty of Medicine in Skopje	Report with conclusions from the first meeting of the Commission, held on Oct 22, 1946	Proposal for constitution of a Commission of Registrars of six members (two of them were from Macedonia) to carry on further activities for establishing a FM in Skopje
Commission of Registrars for establishing a Faculty of Medicine in Skopje	Reports with conclusions from the meetings held on Nov 25–30, 1946, Jan 3–5 and Feb 18, 1947	Plan for utilizing the existing premises for education and work, for supplying necessary laboratory material, apparatus and professional books was made, as well as a proposal to create a core group of 19 lecturers of the FM in Skopje
Committee of Public Health of the Government of FPRY	Decision on Feb 20, 1947, to adopt all recommendations from the Commission of Registrars	Proposal to the Ministry of Public Health of the Government of PR Macedonia to pass adequate decisions
Ministry of Public Health and Ministry of Education of the Government of PR Macedonia	Decision on Feb 25, 1947, to adopt all recommendations from the Commission of Registrars	Proposal to the Government of PR Macedonia to pass adequate decisions
Government of PR Macedonia	Decree of March 6, 1947, for the foundation of the FM in Skopje	The first core group of 19 teachers (8 of them from Macedonia), as well as the Acting Dean and Acting Vice-Dean of the FM in Skopje were appointed
Teachers' Council of the FM in Skopje	Report with conclusions adopted at the first meeting, held on March 17, 1947 marked the beginning of the real existence and activities of the FM in Skopje	The teaching process of preclinical subjects to be organized in the existing premises of the Hygiene Institute and of the Secondary Nursing School, and the departments of the General County Hospital of 640 beds to be rearranged into 10 clinics

The Commission for exploring the possibilities for establishing the Skopje FM and the Commission of Registrars were carrying out all organizational and legal activities within the preparatory process and recommended the plans for the construction of buildings for all institutes and clinics to be prepared and realized, as a permanent solution for conducting the activities of the Skopje FM. Help was required and expected, first of all from the medical faculties in Belgrade, Zagreb and Ljubljana, within the framework of their possibilities, concerning qualified teaching staff, equipment, a library and other teaching materials. Additionally, the Commissions recommended the creation of a core group of teachers for initiating the teaching process and, at the same time, sending young researchers from PR Macedonia on study training within the country and abroad, as well as other concrete measures that were to be undertaken by the governments of both PR Macedonia and FPR Yugoslavia in order to accomplish activities regarding the establishment of the Skopje FM in 1947 [1, 2, 9, 11].

The Ministry of Public Health and the Ministry of Education of the Government of PR Macedonia accepted all recommendations from the Commission of Registrars at the end of Feb. 1947 and all the necessary procedures for establishing the Skopje FM were accomplished. The Government of PR Macedonia, on March 6, 1947, issued a Decree for the foundation of the Skopje FM and for appointing the first core group of 19 teachers/professors, of whom eight were from the PR Macedonia (Sterjo Bozdov, Boris Spirov, Gligor Muratovski, Leon Melkonijan, Panče Karagjozov, Haralampie Mančev, Petar Zdravev, and Boris Vitanov), [2, 11]. Prof. Dr. Sterjo Bozdov was appointed to be the Acting Dean of the Faculty, who chaired the first meeting of the Teachers' Council of the FM-Skopje, held on 17th March 1947 [1, 2, 11, 13].

This first meeting was important as the beginning of the real existence and activities of the FM-Skopje and because of the conclusions adopted, relating to the teaching process and necessary premises. The departments of the General County (Zemska) Hospital in Skopje were transformed into the first nine clinics (for surgery, internal medicine, paediatrics, gynaecology and obstetrics, psychiatry, infectology, dermatovenerology, ophthalmology, and for ear, nose and throat diseases) and the Tuberculosis Clinic/Institute, all together sharing 640 hospital beds.

The first six institutes of the Skopje FM were formed in 1947 (for anatomy, histology, chemistry with biochemistry, physiology with pathological physiology, pathology and pharmacology). The institutes were 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 [7, 11, 15].

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, 11, 14–16].

The first regular management body of the Skopje FM was elected, by secret ballot, at the fourth meeting of the Teachers' Council, held on October 22, 1947. Prof. Dr. Sterjo Bozdov was elected as Dean, and Prof. Dr. Miloe Vidaković as Vice-dean of the FM-Skopje.

This was the beginning of the regular work of the FM-Skopje and the work of the Commission of Registrars ceased. The Teachers' Council had the power of Faculty Management, having the right to resolve not only education-related issues, but organizational, staff, financial and other issues related to the work and existence of the Faculty [1, 2, 11].

The regular education process for the first generation of 153 enrolled students at the Skopje FM began on November 3, 1947, in accordance with the 6-year Plan (12 semesters) and study regimen (41 subjects/courses) with 6015 teaching hours (57% theoretical lectures and 43% practical exercises), identical to the plans and regimens of study in the other medical faculties in FPR Yugoslavia [1, 2, 7, 10, 12–14, 17, 19]. At that period of the initial educational process and real existence of the Skopje FM there were 19 teachers and 40 medical doctors as professional staff, some of them being assistant lecturers [16].

The Skopje FM was the basis for the formation of the Faculty of Dentistry and the Faculty of Pharmacy in Skopje, providing continuously to the present time interdisciplinary support to the teaching process to those faculties. The Clinic for mouth, jaw and dental diseases, established in 1948, became the Department of Dentistry at the Skopje FM in 1959, with enrolled the first generation of 37 students. The Faculty of Dentistry grew out of the Department of Dentistry at the Skopje FM in 1977/78. The Faculty of Pharmacy was also established in 1977/78, with dominant support to its establishment and the implementation of the teaching curriculum by many teachers from the Skopje FM [3, 11].

In the academic year 2007/08 the High School Programme for radiology technicians within the Skopje FM was transformed into a higher level Programme of three-year studies, in accordance with the European Credit Transfer System (ECTS), for four different profiles of graduated health professionals: radiology technicians, nurses, physiotherapists and speech therapists [12].

Doctors and lecturers from Macedonia who contributed to the establishment and initial development of the Faculty of Medicine in Skopje

The leading doctors and lecturers from Macedonia who were the most actively involved in activities and contributed the most to the establishment and/or initial development of the Skopje FM, in the period 1947–54, are presented in Table 2 in alphabetical order.

The first group of 15 teachers from PR Macedonia, shown in Table 2, contributed to the establishment and/or initial development of certain departments/chairs and organizational units (clinics and institutes) of the Skopje FM in the first years after its establishment and thus the majority of them performed certain managerial functions. Below are shown the dates and conditions of formation of 5 clinics (paediatrics, dermatovenerology, chest diseases and TBC, dentistry, and ear nose and throat diseases), 2 institutes (radiology, and pathological physiology), and the relevant chairs within them, as well as two chairs (hygiene and epidemiology) affiliated to the Institute of Hygiene in Skopje. The teachers from Macedonia, who made key contributions to the establishment and initial development of the above-designated 5 clinics and 2 institutes, and the relevant chairs within them, and two additional chairs attached to the Institute of Hygiene in Skopje, as well as the teachers from Macedonia who, in the period from 1947–54 and beyond, contributed to the initial development of other clinics and institutes established and headed by more experienced professors who came from Croatia, Serbia and other republics/countries, are presented with brief CVs and photos in alphabetical order by the first letter of the surname.

In the period 1955–60, a group of 22 assistant lecturers from PR Macedonia were appointed/elected, who strengthened the staffing of existing clinics and institutes and were moving power forward for further development of the healthcare professional, research and educational activities of the FM-Skopje. Some essential details about this young group of lecturers are presented, in alphabetical order, in the Table 3.

1. Establishment 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 Rentgenology 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 supplied with new equipment. In 1963, the Institute of Radiology was divided into two departments – for radiotherapy and for radio-diagnostics. Later on, in 1979, these departments were transformed into two institutes: the Institute of Radiology and the Institute of Radiotherapy and Oncology, located in

Table 2

Leading doctors and lecturers from Macedonia who contributed to the establishing and/or initial development of the Faculty of Medicine in Skopje in the period 1947–54 [20–42]

Family and first name	First election as lecturer at the Skopje FM, field of expertise, year	Place and date of birth	Graduated from	Contributed to the establishment and/or development of a chair, institute, clinic, field	Educational and other managerial functions and period of performance
Anastasov Ivan	Hon. Lecturer in Rentgenology, 1947	Kavadarci, RM, 23.07.1908	FM-Belgrade, Serbia, 1933	Founder of the Institute of Radiology	Head of the Institute of Radiology, 1947–55
Arsov Dimitar	Assistant Professor in Internal Medicine, 1950	Kr. Palanka, RM, 28.09.1908	FM-Paris, France 1932	Chair and Clinic of Internal Medicine	Director – Clinic of Internal Med., 1952–74, and of Infect. Diseases, 1954–56, Academician, 1967
Bozdov Sterjo	Professor in Hygiene, 1947	Kruševo, RM, 7.01.1902	FM-Belgrade, Serbia, 1933	Founder of the Chair of Hygiene	Head of the Chair, 1947–52, Dean of the FM-Skopje, 1947–50, Vice-Rector 1950–52, President of the MMS, 1951–52
Čakmakov Anton	Assist. Lecturer, 1951, Assist. Professor in Gynaecol and Obstetrics, 1954	Dojran, RM, 28.02.1909	FM-Belgrade, Serbia, 1936	Chair and Clinic of Gynaecology and Obstetrics	Head of the Chair and Director of the Clinic of Gynaecology and Obstetrics, 1957–67, Dean of the FM-Skopje, 1961–1963
Gavrilski Georgi	Assoc. Professor in Epidemiology, 1949	Sv. Nikole, RM, 11.04.1911	FM-Belgrade, Serbia, 1937	Founder of the Chair of Epidemiology	Member of the Commission for establishing the FM in Skopje 1947, Vice-Dean of the FM-Skopje, 1949, President of the MMS, 1948–50
Karagjozov Panče	Assist. Professor in Surgery, 1947	Štip, RM, 18.07.1903	FM-Vienna, Austria, 1929	Clinic of Abdominal Surgery	Director of the Clinic of Surgery, 1965–66
Mančev Haralampie	Assistant Professor in Paediatrics, 1947	Kočani, RM, 3.02.1898	FM-Belgrade, 1928	Founder of the Chair and Clinic of Paediatrics	Head of the Chair, 1947–57, Director of the Clinic, 1947–57, President of the MMS, 1952–55
Melkonijan Leon	Assistant Professor in Anatomy, 1947	Zibivče, Ristovac, Serbia, 15.11.1892	FM-Geneva, Switzerland, 1918	Chair and Institute of Anatomy	Member of the Educational and Scientific Council of the FM-Skopje
Miovski Done	Assist. Professor in Dermatovenerology, 1951	Skopje, RM, 16.03.1909	FM-Belgrade, 1935	Co Founder, Chair & Clinic of Dermatovenerology	Director of the Clinic, 1950–74, Vice-Dean of the FM-Skopje, 1956–58
Muratovski Gligor	Associate Professor in Pthysiology, 1947	Galičnik, RM, 22.03.1899	FM-Vienna, Austria, 1925	Founder of the Clinic and Institute of Chest Diseases and TBC	Director of the Clinic, 1947–56, Director of the Institute, 1956–61, Dean 1954–55, 1958–61; President of MMS 1958–59
Smilev Dimitar	Assistant Professor in Dentistry, 1954	Veles, RM, 17.10.1909	FM-Zagreb, Croatia, 1935	Founder of the Clinic of Dentistry	Head of the Clinic, 1951–59, Head of the Department of Dentistry, 1959–74
Spirov Boris	Professor in Internal Medicine, Introduction and History of Medicine, 1947	Brždani, Kičevo, RM, 22.09.1897	FM-Leipzig, Germany, 1928	"Introduction and History of Medicine" Course	Founder and President of the Macedonian Medical Society, 1945–48, Vice-Dean of the FM-Skopje, 1950–51
Stavridis Sotir	Hon. Lecturer in Surgery, 1952, Assist. Prof. 1956	Skopje, RM, 10.10.1904	FM-Graz, Austria, 1931	Clinic and Chair of Surgery	Head of the Department/Clinic of Urology, 1947–61, Director of the Clinic of Surgery, 1953–54
Tadžer Isak	Assistant Professor in Pathologic Physiology, 1952	Sofia, Bulgaria, 24.12.1916	FM-Sofia, 1941	Founder of the Institute and Chair of Patophysiology	Director of the Institute, Vice-Dean, 1958–59, Dean, 1964–65, Vice-Rector 1965–66, Editor in Chief of MMR, 1954–59, 1978–88, Acad. 1974
Zdravev Petar	Hon. Lecturer in Otorhinolaringology, 1947	Tetovo, RM, 25.06.1883	FM-Geneva, Switzerland, 1919	Founder of the Chair&Clinic of Otorhinolaringology	Head of the Chair, 1947–57, Director of the Clinic, 1947–57

Table 3

Doctors from Macedonia who were first time elected lecturers at the Faculty of Medicine in Skopje in the period 1955–60 [22, 23, 43–64]

Family and first name	First election as lecturer at Skopje FM, field of expertise, year	Place and date of birth	Graduated from	Contributed to the development of a chair, institute, clinic, field	Educational and other managerial function and period of performance
Andreevski Aleksandar	Assist. Professor in Otorhinolaryngology, 1957	Kožle, Skopje, RM, 9.02.1922	FM-Zagreb, Croatia, 1948	Clinic and Chair of Otorhinolaryngology	Director of the Clinic, 1957–87, Vice-dean, 1960–63, Dean of FM, 1965–69, Rector of UKIM, 1982–84, Acad., 1986, Vice-President of MASA, 1992–99
Davčev Penčo	Assist. Professor in Internal Medicine, 1957	Veles, RM, 15.06.1922	FM-Belgrade, Serbia, 1948	Clinic and Chair of Gastroentero-hepatology	Director of the Clinic, 1953–87, Dean of FM, 1971–73, President of MMS, 1960–61, Acad. 1988
Duma Hristo	Assist. Professor in Paediatrics, 1958	Bitola, RM, 28.11.1919	FM-Belgrade, Serbia, 1946	Clinic and Chair of Paediatrics	Director of the Clinic, 1962–74, Head of the Chair, 1968–74, Vice-Dean, 1960–63, Dean of the FM, 1969–71
Fildiševski Petar	Assist. Professor in Neuropsychiatry, 1958	Ohrid, RM, 1.02.1924	FM-Belgrade, Serbia, 1951	Clinic and Chair of Neuropsychiatry	Director of the Clinic, 1964–78, Head of the Chair, 1964–78
Georgiev Krsto	Assist. Professor in Surgery, 1959	Selce, Struga, RM, 28.03.1915	FM-Sofia, Bulgaria, 1942	Clinic and Chair of Abdominal Surgery	Head of the Department/Clinic of Abdominal Surgery
Georgievski Nikola	University Lecturer in Hygiene and Social Medicine, 1956, Assist. Professor, 1961	Skopje, RM, 15.12.1922	FM-Zagreb, Croatia, 1949	Chair of Hygiene and Social Medicine	Head of the Chair, 1956–65, Minister of Health, RM 1962–65 and of YU, 1967–72, President of Red Cross of YU, 1972–76, WHO expert in Asia, 1977–82
Hadži-Boškov Aleksandar	Assist. Professor in Otorhinolaryngology, 1960	Skopje, RM, 21.06.1923	FM-Belgrade, Serbia, 1950	Clinic and Chair of Otorhinolaryngology	Chief of the Department within the ORL Clinic
Hrisoho Dimitar	Assist. Professor in Internal Medicine, 1959	Bitola, RM, 11.06.1924	FM-Belgrade, Serbia, 1951	Clinic of Nephrology	Director of the Clinic, 1975–86, Vice-Dean of FM, 1963–65, Vice-Rector of UKIM, 1974–75
Lazarov Aleksandar	Assist. Prof. in Gynaecology and Obstetrics, 1957	Kavadarci, RM, 27.01.1920	FM-Belgrade, Serbia, 1948	Clinic and Chair of Gynaecology and Obstetrics	Director of the Clinic and Head of the Chair of Gynaecology and Obstetrics, 1975–83
Miovski Dimitar	Assist. Professor in Ophthalmology, 1959	Skopje, RM, 1.09.1913	FM-Belgrade, Serbia, 1941	Clinic and Chair of Ophthalmology	Director of the Clinic, 1960–82, President of the Association of Ophthalmology of YU
Mironski Save	Assist. Professor of Infectology, 1959	Tresonče, Debar, RM, 14.01.1922	FM-Belgrade, Serbia, 1949	Clinic and Chair of Infectology	Director of the Clinic and Head of the Chair, 1959–85; Vice-Dean, 1969–71; Dean, 1976–78
Nedelkovski Jonče	Assist. Professor in Internal Medicine, 1959	Borovec, Struga, RM, 14.01.1924	FM-Belgrade, Serbia, 1951	Institute of Hematology and Transfusiology	Director of the Institute, 1970–1980, President of the MMS, 1962–63, Editor-in-Chief of the MMR 1966–70
Panovski Jovan	Assist. Professor in Surgery, 1958	Skopje, RM, 6.10.1920	FM-Zagreb, Croatia, 1947	Dept/Clinic of Child and of Plastic Surgery	Chief of the Dept/Clinic of Child (from 1953) and Plastic Surgery (from 1956); Head, Clinic of Surgery, 1966–82
Perčinkovski Radovan	Assist. Professor in Internal Medicine, 1958	Bašino Selo, Veles, 25.09.1922	FM-Belgrade, Serbia, 1948	Dept/Clinic of Cardiology	Chief of the Dept/Clinic, 1953–74, Dean of the FM, 1974–76
Sadikario Avram	Assist. Professor in Paediatrics, 1959	Bitola, RM, 14.05.1919	FM-Sofia, Bulgaria, 1945	Clinic and Chair of Paediatrics	Director of the Clinic, 1974–82, Head of the Chair, 1975–84
Stankovski Metodija	Assist. Prof. in Gynaecology and Obstetrics, 1957	Prilep, RM, 4.10.1917	FM-Belgrade, Serbia, 1947	Clinic and Chair of Gynaecology and Obstetrics	Head of the Department of Conservative Gynaecology, Editor-in-Chief of MMR 1960–65
Stefanovski Stefan	Assist. Professor in Neuropsychiatry, 1958	Skopje, RM, 11.03.1924	FM-Belgrade, Serbia, 1950	Clinic and Chair of Neuropsychiatry	Director of the Clinic and Head of the Chair, 1978–86, President of the MMS, 1973–77
Stefkov Stefan	Assist. Prof. in Microbiology, 1958	Skopje, RM, 18.11.1920	FM-Belgrade, Serbia, 1948	Institute and Chair of Microbiology	Director of the Institute and Head of the Chair of Microbiology, 1978–86
Šukarov Ljubomir	Assist. Prof. in Gynaecology and Obstetrics, 1957	Veles, RM, 2.12.1919	FM-Sofia, Bulgaria, 1944	Clinic and Chair of Gynaecology and Obstetrics	Director of the Clinic, 1968–73, Vice-Rector of UKIM, 1967–68, President of the Medical Assoc. of YU 1970
Teodosievski Dušan	Assist. Professor in Paediatrics, 1959	Kumanovo, RM, 17.05.1922	FM-Belgrade, Serbia, 1949	Clinic and Chair of Paediatrics	President of the Maced. Med. Society, 1967–70, and of Association of the Med. Societies of SFRJ
Tevčev Dimitar	Assist. Professor in Radiology, 1958	Skopje, RM, 4.01.1923	FM-Sofia, Bulgaria, 1946	Institute of Radiology	Director of the Institute of Radiology, 1958–1982
Železarov Dimitar	Assoc. Professor in Dental Prosthetics, 1960	Veles, Macedonia, 1900	FM-Vienna, Austria, 1927	Chair of Dental Prosthetics	Acting Head of the Clinic of Dentistry at the FM-Skopje, 1955–56, Chief of the Chair, 1960–65

separate new buildings with modern equipment [12]. The first Head of the Institute of Radiology, from 1947 to 1955, was Dr. Ivan Anastasov (Box 2), who was the first honorary lecturer on the course in radiology from 1951–57. In 1957, the Chair of Radiology was created and the first Head of the Chair was appointed, Assist. Prof. Dr. Dimitar Tevčev (Table 3).

Box 2. Ivan Anastasov, University Lecturer in Radiology [11, 12, 15, 20–22]



University lecturer Prim. Dr. Ivan Anastasov graduated at the Faculty of Medicine in Belgrade in 1933. He was the first specialist doctor in radiology in Macedonia who started his specialization in 1939 in Skopje and completed it in 1942 in Sofia. He was appointed honorary lecturer in the subject of radiology at the Faculty of Medicine in Skopje in 1947. In 1955 he was granted the title Primarius by the Ministry of Public Health and in 1957 was re-elected as university lecturer in radiology at the Faculty of Medicine in Skopje.

University lecturer Prim. Anastasov, as the first Director of the Institute of Radiology, organized and carried out the teaching in radiology for the first and several subsequent generations of students in the period 1951–57. He was the founder of the Institute, providing necessary equipment of high standard at that time.

University lecturer Prim. Anastasov died in Skopje in 1979.

2. Development of the Internal Medicine Clinic and the Infectious Diseases 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 Professor Dr. Aleksandar Ignjatovski [8], who came from Belgrade in 1948. Prof. Ignjatovski led the Clinic of Internal Medicine in Skopje till his retirement in 1952. Then, Assistant Professor Dr. Dimitar Arsov (Box 3) was appointed Director of the Clinic and Head of the Chair of Internal Medicine, who served in those positions in the period 1952–74.

The Infectious Diseases Clinic was somehow integrated within the Internal Medicine Clinic and the first lecture on infectious diseases was delivered by Prof. Ignjatovski. Prof. Gligor Muratovski was appointed Acting Head of the Infectious Diseases Department, while the first doctors engaged to work on infectious diseases were Dr. Risto Trifunov-Brezjanin and Dr. Dimitar

Arsov, both of them being directors of the Clinic in 1950s. In 1960, Assist. Professor Save Mironski was appointed Head of the Chair and Director of the Infectious Diseases Clinic, serving in these positions for more than 20 years (Table 3), [1, 12].

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-specialist departments 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, 11, 12].

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

Box 3. Dimitar Arsov, Academician and Professor of Internal Medicine [11, 12, 15, 23–26]



Prof. Dr. Dimitar Arsov completed medical studies in 1932 and specialised internal medicine in 1936 at Sorbonne, Paris, France.

Prof. Arsov was elected an Assistant Lecturer, in 1947, later he was elected as Docent (1950), as Associate Professor (1956) and a Professor in 1960 at the Faculty of Medicine in Skopje. In the period from 1952 until his death in 1974 he was the Director of the Internal Medicine Clinic of the Faculty of Medicine in Skopje. He was elected a regular member of the Macedonian Academy of Sciences and Arts in 1967, as a first member from the medical sciences.

Prof. Arsov published over 200 scientific and expert papers, communications and discussions, and is the author of five textbooks. In his activity he united the qualities of a great medical worker, doctor, specialist internist, educator and scientist. He is the creator of modern internal medicine in Macedonia. As a great clinician, educator, Professor of internal medicine and scientist he was one of the most distinguished medical figures of the second part of the 20th century in the Republic of Macedonia.

Academician Prof. Dr. Dimitar Arsov died in Skopje in 1974.

3. Establishment of the Chair of Hygiene

During the establishment of the Skopje FM the first 6-year Plan and study regimen was adopted in March 1947. The teaching plan was identical to the plans and regimens of study in other medical faculties in FPR Yugoslavia.

A course in hygiene, with contents from the field of social medicine, was included in the curriculum with 90 theoretical lectures and 120 practical exercises and field work/visits. Prof. Dr. Sterjo Bozdov was appointed as the first lecturer and Head of the Chair of Hygiene, from 1947–52 (Box 4). 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 [8]. After that the university lecturer in hygiene and social medicine, Dr. Nikola Georgievski (Tab. 3), took responsibility for theoretical lectures on this course with the new title of Hygiene with Statistics and Social Medicine (1956–65).

Box 4. Sterjo Bozdov, Professor of Hygiene [11, 12, 15, 22–23]



Prof. Dr. Sterjo Bozdov graduated from the Faculty of Medicine in Vienna, Austria, in 1933.

Prof. Bozdov was a member of the Presidium of the first democratic Government of Macedonia (ASNOM) in 1944.

Prof. Bozdov was elected teacher in 1947, being one of the first core group of 19 lecturers at the Faculty of Medicine in Skopje. He was the first Dean of the Faculty of Medicine in Skopje in the period 1947–50, managing invitations to lecturers from Serbia, Croatia and other republics/countries to join the Faculty of Medicine in Skopje. Within this period Prof. Bozdov served as

Director of the Institute of Hygiene in Skopje while the new building of the Institutes at the Faculty of Medicine in Skopje was being built. Then Prof. Bozdov served as Vice-Rector of the University in Skopje from 1950–52 and President of the Macedonian Medical Society from 1951 to 1952.

Prof. Bozdov was the first Head of the Chair of Hygiene in the period from 1947–52.

Prof. Dr. Sterjo Bozdov died in Kruševo in 1987.

4. 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 [14]. At first, only two specialist doctors in gynaecology and obstetrics and three specialist doctors were employed at

the clinic. Prof. Dr. Milenko Berić was founder and appointed as the first director of the Clinic and Head of the Chair [8]. He served until 1957, when Assoc. Prof. Anton Čakmakov (Box. 5) 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 was moved to its newly adapted building with a total of 220 hospital beds (122 for gynaecological 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 were strengthened by three elected assistant professors: Aleksandar Lazarov, Metodija Stankovski and Ljubomir Šukarov (Table 3). 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. [8, 15].

Prof. Čakmakov made a great contribution to the further development and prosperity of the Gynaecology and Obstetrics Clinic in Skopje with many important methods introduced in the scope/domain of this field of health care and educational and scientific work [15].

Box 5. Anton Čakmakov, Professor of Gynaecology and Obstetrics [11, 12, 15, 27–29]



Prof. Dr. Anton Čakmakov graduated from the Faculty of Medicine in Belgrade in 1936. One year later he started specialization in Skopje and continued in Sofia, Bulgaria, where he passed the specialist exam in Gynaecology and Obstetrics in 1942. After the liberation Dr. Čakmakov was appointed as the Minister of Public Health of PR Macedonia.

In 1951 Dr. Čakmakov was elected as Assist. Lecturer, and later on as Assist. Professor (1954), Assoc. Professor (1957) and Full-time Professor (1961) at the Faculty of Medicine in Skopje.

In the period 1955–56 Prof. Čakmakov served as Vice-Dean, and 1961–63 as Dean of the Faculty of Medicine in Skopje. He was the Director of the Clinic and Head of the Chair of Gynaecology and Obstetrics from 1957 to 1967.

In addition, Prof. Čakmakov served as President of the Association of Gynaecology and Obstetrics of Yugoslavia from 1956–60.

Prof. Dr. Anton Čakmakov died in Skopje in 1967.

5. *Establishment of the Chair of Epidemiology*

The course in epidemiology was included in the first curriculum of the Skopje FM with 30 theoretical lectures and 30 practical exercises. Assoc Prof. Dr. Gjorgji Gavrilski (Box 6) was appointed as the first lecturer and Head of the Chair of Epidemiology from 1949–51. After that Prof. Dr. Bogdan Karakašević was an honorary teacher of epidemiology from 1952 to 1973 and from 1975 to 1976 [8]. During the two-year period from 1973–74 theoretical lectures on this course were delivered by Professor Dr. Save Mironski (Table 3) and in 1978 the university lecturer in epidemiology, Dr. Kiril Janev, was appointed and authorized to continue the teaching process in epidemiology with biostatistics and medical informatics to the students of medicine.

Box 6. Georgi Gavrilski, Professor of Epidemiology [11, 12, 15, 22, 30]



Prof. Dr. Georgi Gavrilski graduated at the Faculty of Medicine in Belgrade, Serbia, in 1937. In 1946, Dr. Gavrilski had been appointed as an assistant to the Minister of Public Health in the Government of Macedonia. He was a member of the Commission for exploring the possibilities for establishing the Faculty of Medicine in Skopje and then a member of the Commission of Registrars, constituted in 1946.

He was elected Professor in epidemiology at the Faculty of Medicine in Skopje in 1949.

Prof. Gavrilski served as a Vice-Dean at the Faculty of Medicine in Skopje from 1949 to 1950, president of the Macedonian Medical Society from 1948 to 1950, and Director of the Federal Institute of Tropical Diseases in Belgrade from 1949–51. He was one of the leading experts on malaria endemic eradication in Macedonia.

Prof. Dr. Georgi Gavrilski died in Skopje in 1987.

6. *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 [9, 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 [7]. During the period from 1955 to 1956, when Prof. Oberhofer was absent from time to time and after he left Macedonia in 1956, Assist. Prof. Panče Karagjovov (Box 7) was appointed as Acting Director of the Clinic of

Surgery and Chief of the Chair until 1958 when Prof. Dr. Bogosav Dragojević from the Belgrade FM joined the Surgery Clinic as director and head of the chair [8].

Box 7. Panče Karagjozov, Professor of Surgery [11, 12, 15, 22, 31, 32]



Prof. Dr. Panče Karagjozov graduated from the Faculty of Medicine in Vienna, Austria, in 1929, and completed habilitation on breast cancer. Then he completed his specialization in surgery in Belgrade (1936), and continued to upgrade his expertise in many other clinics in Yugoslavia and a number of centres of surgery in the European countries (Erlangen, Zurich, Stocholm).

Prof. Karagjozov was the Head of the Department of Surgery of the General County Hospital in Skopje from 1941 to 1947, which was transformed into the Surgery Clinic at the Faculty of Medicine in Skopje in 1947, and he was appointed as Assistant Director of the Clinic.

In the same year he was elected teacher, being one of the first core group of 19 lecturers at the Faculty of Medicine in Skopje.

Prof. Karagjozov created the first Centre for traumatology within the Surgery Clinic in 1952. He is the founder of contemporary digestive surgery in Macedonia, especially surgery of the stomach, by introducing vagotomy.

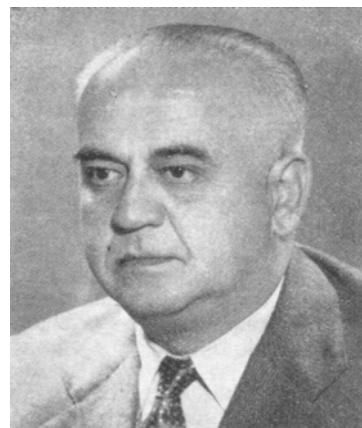
Prof. Karagjozov was the Acting Director of the Surgery Clinic at the Faculty of Medicine in Skopje, from time to time in 1955 and continuously from 1956–58, and after that continued to serve as Assistant Director of the Clinic.

Prof. Dr. Panče Karagjozov died in Skopje in 1971.

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).

In the period from 1954 to 1961 the Head of the Urology Clinic was Assoc. Prof. Dr. Sotir Stavridis (Box 8), who also served as acting director of the Surgery Clinic from Aug 1953 to Sept 1954. Newly elected Assistant Professor Krsto Georgiev was appointed, in the early 1960s, as the Head of the Abdominal Surgery Clinic (Table 3).

In October 1958 two additional independent clinics were established. The first one was the Neurosurgery Clinic, headed by Assist. Lecturer Dr. Petar Tofović, while the second was the Plastic and Reconstructive Surgery Clinic, headed by Assist. Prof. Jovan Panovski (Table 3).

Box 8. Sotir Stavridis, Associate Professor of Surgery [11, 12, 15, 29, 40]

Prof. Dr. Sotir Stavridis graduated from the Faculty of Medicine in Graz, Austria, in 1931. He completed specialization in surgery in Belgrade in 1936. Dr. Stavridis was employed in the General County Hospital in Skopje from 1946 and, after the establishment of the Faculty of Medicine in Skopje in 1947, he was appointed as the first Assistant Lecturer at the Clinic of Surgery and Head of the Department of urology. In 1952 he was elected as Honorary Lecturer and later on, in 1955, was granted with the title *Primarius* by the Ministry of Public Health of Macedonia. Then he was elected Assist. Professor (1956) and Assoc. Professor (1960).

Prof. Stavridis upgraded his expertise in urology during his six-month affiliation to the University Clinic of Surgery in Paris in 1957–58. He was the Head of the Urology Clinic from 1954 to 1961 and the founder of modern urology in Macedonia, introducing a number of new methods of surgery in this field.

Prof. Dr. Sotir Stavridis died in Skopje in 1961.

7. Establishment of the Paediatrics Clinic

The Paediatrics 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 Paediatrics Clinic was Assist. Prof. Haralampie Mančev (Box 9), who served in the period from 1947 to 1957.

In 1957 the Paediatrics 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, who was appointed as Director of the Paediatrics Clinic, Assist. Prof. Dr. Avram Sadikario and Assist. Prof. Dr. Duško Teodosievski (Table 3).

Box 9. Haralampie Mančev, Assistant Professor of Paediatrics [11, 12, 15, 29, 33]

Assist. Prof. Dr. Haralampie Mančev graduated from the Faculty of Medicine in Belgrade in 1928. He completed specialization in paediatrics in Sofia, Bulgaria, in 1942, and became Head of the Department of Paediatrics within the General County Hospital in Skopje in 1943. In 1947 he presented his habilitation in Skopje and was elected assistant professor, being one of the first core group of 19 lecturers at the Faculty of Medicine in Skopje.

Assist. Prof. Dr. Haralampie Mančev was the founder and the first director of the Paediatrics Clinic and Chief of the Chair of paediatrics from 1947–57. In 1949 he realized one year's professional stay in Zurich, Switzerland, and was devoted to research on the diagnosis and treatment of Kala-Azar and the eradication of malaria in Macedonia.

Assist. Prof. Dr. Haralampie Mančev was appointed the first Editor-in-Chief of the Macedonian Medical Review, 1946–47, and the fourth President of the Macedonian Medical Society, from 1952 to 1955.

Assist. Prof. Dr. Haralampie Mančev died in Skopje in 1974.

8. Development of the Institute and Chair of Anatomy

After its foundation in 1947, the Institute of Anatomy was housed in three modest rooms in an old shed in the grounds of the General County Hospital. In 1948, the Institute of Anatomy received a new space in the newly-constructed building of the Institutes of the Skopje FM, equipped with two dissecting rooms, an osteological dissectional-preparatory (taxidermist) laboratory, a museum room, lecture hall, facilities for the preparation of macerated preparations, injecting and storing of cadavers, an office library and rooms for teaching staff. With these expanded spatial features and an increased number of posts in the dissection halls, the Institute could perform normal practical teaching for 100–120 students of medicine [9, 14]. The first Head of the Chair and Director of the Institute of Anatomy, in the period 1948–57, was Prof. Dr. Zdenko Križan [7]. From the moment of the establishment of the Institute of Anatomy Assist. Prof. Leon Melkonijan (Box 10) was included in the teaching process in the course on anatomy.

Box 10. Leon Melkonijan, Professor of Anatomy [11, 12, 15, 29, 34]

Assoc. Prof. Dr. Leon Melkonijan graduated from the Faculty of Medicine in Geneva, Switzerland, in 1918, where he completed his doctoral dissertation (1920) and specialization in general surgery and sub-field abdominal surgery. He was appointed as an assistant lecturer in anatomy at the Faculty of Medicine in Geneva.

In 1947, Dr. Leon Melkonijan was elected assistant professor, being one of 19 lecturers of the first core group at the Faculty of Medicine in Skopje. In 1957, he was elected as associate professor in anatomy at the Faculty of Medicine in Skopje.

Assoc. Prof. Leon Melkonijan was a devoted teacher who successfully delivered theoretical lectures and practical exercises, especially in the field of topographical anatomy.

Assoc. Prof. Leon Melkonijan died in Zagreb in 1973.

9. Establishment of the Clinic and Chair of Dermatovenerology

The Skin and Venereal Diseases Clinic at the Skopje FM was established in 1947 by transforming the previous Department of Skin and Venereal Diseases of the General County Hospital, with about 60 hospital beds in male and female departments, in limited and inappropriate conditions in the basement of the surgery clinic building. In 1956, the Skin and Venereal Diseases Clinic moved to the ground floor of the clinical block building and gained additional space within the first building for polyclinics at the Skopje FM. The first director of the Clinic, in the period of the foundation of the Clinic and in the next three years, from 1947 to 1950, was Prof. Dr. Ernest Hammerschmidt, who came from the Ljubljana FM, Slovenia, to help and support the newly established FM-Skopje. In 1950, Assist. Professor Dr. Done Miovski (Box 11) was appointed Director of the Clinic and, a few months later, the Head of the Chair of Skin and Venereal Diseases.

Box 11. Done Miovski, Professor of Dermatovenereology [11, 12, 15, 29, 35]

Dr. Done Miovski graduated from the Faculty of Medicine in Belgrade in 1935, where he completed specialization in dermatovenereology in 1938. In 1945, he was appointed as Head of the Department of Skin and Venereal Diseases of the General County Hospital in Skopje and, in addition, he was appointed as Director of this Hospital in 1946. In 1947, Dr. Miovski was co-founder of the Skin and Venereal Diseases Clinic. He was appointed as assistant lecturer and Head to one of two departments within the Clinic until 1950. He was elected as Assistant Professor in January 1951, Associate Professor in 1957, and a Full Professor in 1961.

In 1950, Prof. Done Miovski was appointed Director of the Clinic and, a few months later, as head of the Chair of Skin and Venereal Diseases. He served continuously in these positions until his retirement in 1974.

Prof. Miovski was a pioneer in dermatovenereology science in Macedonia, who continued to upgrade his expertise in Zagreb, London, Paris, Zurich, Tubingen and other renowned clinics in Germany, England, France, Switzerland and Poland.

Prof. Done Miovski died in Skopje in 1977.

10. Establishment of the Clinic/ Institute of Chest Diseases and TBC

The Chest Diseases and Tuberculosis Clinic at the Skopje FM was established in 1947 by transforming the previous Department of Chest Diseases and Tuberculosis of the General County Hospital, with about 60 hospital beds within a building adapted from the dormitory of the Nursing/Pharmacy School. A few years later the capacities were slightly improved with some additional new buildings for epidemiology and preventive activities, administration, and an outpatient department. In 1956 the Clinic was transformed into the Tuberculosis Institute of Macedonia and in 1978, in accordance with the decreasing trend in tuberculosis and upward trend in chronic chest diseases, the name of the institution was broadened into the Chest Diseases and Tuberculosis Institute.

The first director of the Clinic/Institute, in the period from 1947 to 1961, was Prof. Dr. Gligor Muratovski (Box 12), who was the founder of the Clinic/Institute of Chest Diseases and Tuberculosis in Macedonia.

Box 12. Gligor Muratovski, Professor of Pthysiology [11, 12, 15, 29, 36]

Prof. Dr. Gligor Muratovski started medical studies in Sofia and graduated from the Faculty of Medicine in Vienna in 1925. After four years' work as municipality doctor in Galičnik, in 1931 he was employed at the Institute of Hygiene in Skopje for more than 10 years. Then he was Head of the Anti-tuberculosis Dispensary and Director of the General County Hospital in Skopje. In 1947, the Commission of Registrars appointed him as Associate Professor, being one of the 19 lecturers of the first core group at the Faculty of Medicine in Skopje. In 1959 he was elected as Full-time Professor at the Faculty of Medicine in Skopje.

Prof. Muratovski was founder and first Director of the Clinic (1947–56) and Institute of Chest Diseases and Tuberculosis (1956–61).

Prof. Muratovski served as the Dean at the Faculty of Medicine in Skopje with three mandates in the periods 1954–55 and 1958–61, as well as being President of the Macedonian Medical Society from 1958 to 1959.

Prof. Dr. Gligor Muratovski died in Skopje in 1976.

11. Establishment of the Clinic and Chair 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 [7, 38].

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 (Box 13), who was elected Assistant Professor and delivered the first lectures on the dentistry course 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 FM-Skopje.

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 [3, 11, 38].

The first generation of 38 students at the Department of Dentistry was enrolled in 1959. Due to the lack of faculty staff, Prof. Smilev was responsible for five courses at the Department of Dentistry: Preclinical Prosthetics from 1959, Dental Pathology (1960), Dental Surgery (1961), Orthodontics (1961), and Maxillo-facial Surgery (1962). From 1960, the lecturer responsible for the course in Dental Prosthetics was Assoc. Prof. Dimitar Železarov (Table 3). The teaching process at the Department of Dentistry in Skopje was supported by some lecturers from the Faculty of Dentistry in Belgrade (Professors Ivan Bikar, Milisav Teodosijević, Dragoljub Dzaić and Milutin Kremžar) until more lecturers from Macedonia had been educated and elected [8, 38].

Box 13. Dimitar Smilev, Professor of Dentistry [11, 12, 15, 29, 38]



Prof. Dr. Dimitar Smilev graduated from the Faculty of Medicine in Zagreb in 1935 and then completed specialization in oral and dental diseases at the same Faculty in 1938. In 1948, he was appointed to the new-created Clinic of Dentistry within the Faculty of Medicine in Skopje, being the Acting Head of the Clinic from 1951. In 1954, he was elected Assistant Professor for the course of Dentistry at the Faculty of Medicine in Skopje and then Associate Professor (1960) and Full-time Professor (1970). In the meantime he continued to upgrade his expertise in Zagreb, Ljubljana, Dusseldorf, Hamburg and other clinics of dentistry and maxillo-facial surgery in FPRY and Germany.

Prof. Smilev was the founder and first Director of the Dentistry Clinic and an initiator and member of the Commission of Registrars for establishing, first, the Department of Dentistry within the Faculty of Medicine in Skopje in 1959 and then the Faculty of Dentistry in 1977.

Prof. Dr. Dimitar Smilev died in Skopje in 1996.

12. Establishment of the "Introduction to Medicine" Teaching Course

Within the first 6-year Plan and study regimen of the Skopje FM, adopted in March 1947, the course *An Introduction to Medicine*, which included topics and contents from the field of the history of medicine, was one of the 41 courses in the curriculum, with 45 teaching hours for theoretical lectures within two semesters (VI and VII). The first lecturer appointed responsible for this course was Prof. Dr. Boris Spirov (Box 14), who connected the theory and history of medicine with research activities into the current pathology of the population in Macedonia related to endemic goitre, malaria, tuberculosis, abdo-

minal typhus and typhus exanthematous, cholera and other infectious diseases. In the early 1960s Prof. Spirov promoted the idea for the establishment a Museum of the History of Medicine through the centuries on the ground of the ethnic territory of Macedonia. He published a paper in the Macedonian Medical Review in 1956, entitled "Materials for supplying the Library of the Skopje FM relating to the history of medicine in Macedonia" and initiated, among the students and doctors, the collection of medical historical data, documents and other materials concerning the medical services, physicians and other health workers, and experiences of healthcare and traditional medicine activities on the territory of Macedonia from the past to the present time. Such initial activities were brought to a halt by the catastrophic earthquake in Skopje in 1963.

Box 14. Boris Spirov, Professor of Internal Medicine, Introduction and History of Medicine [11, 12, 15, 23, 29, 39]



Prof. Dr. Boris Spirov was elected teacher in 1947 and was one of the first core group of 19 lecturers at the Faculty of Medicine in Skopje. He started medical studies in Prague 1919, for the first two years, and continued and graduated from the Faculty of Medicine in Leipzig, Germany, in 1928.

Prof. Spirov was Full-time Professor in internal medicine, being the lecturer responsible for the course on the *Introduction and history of medicine* from 1947 to 1956.

Prof. Spirov served as Vice-Dean of the Faculty of Medicine in Skopje, 1951–52, and Head of the Central Medical Library within the Faculty of

Medicine in Skopje, 1952–56. He was the founder and first President of the Macedonian Medical Society from 1945–48, and the second Editor-in-Chief of Macedonian Medical Review, 1948–50.

Prof. Spirov was a member (Secretary of the Presidium) of the first democratic Government of Macedonia (ASNOM) in 1944, Minister of Social Affairs from April to November 1946, President of the Parliament for adopting the first Constitution of the PR Macedonia in Dec 1946, and Vice-President of the Presidium of the Parliament from 1947–50.

Prof. Dr. Boris Spirov died in Sofia, Bulgaria, in 1974.

13. Establishment of the Institute and Chair of Pathological Physiology and Nuclear Medicine

The Institute of Pathological Physiology, from 1947–52, was integrated within the Institute of Physiology, founded by Prof. Miloe Vidaković [8]. The

separate Chair of Pathologic Physiology was created in the same premises in 1949 and the first Acting Head of the Chair was Professor Dr. Miloe Vidaković, 1949–52 [15]. In this period the Institute of Pathological Physiology was situated within the premises of the Building of the Institutes. Assistant Professor Ishac Tadžer was appointed as the first Director of the newly established independent Institute of Pathological Physiology, and Head of the Chair of Pathological Physiology (Box 15), and served in these positions from 1952 to 1978. In 1956, the Institute of Pathological Physiology moved to the Clinical block building, with premises on the ground floor, while in 1964 the Institute was placed in a separate new building with about 1200 m² functional area. In 1958, a laboratory for the use of radioisotopes in clinical trials and outpatient services started to be active in the Institute with the new name of the Institute of Pathological Physiology and Nuclear Medicine.

Box 15. Ishak Tadžer, Academician and Professor of Pathological Physiology

[11, 12, 15, 23, 29, 41, 42]



Prof. Dr. Ishak Tadžer started medical studies in Vienna (1935–39) and graduated from Sofia in 1941. He completed specialization in internal medicine in Skopje in 1948. He was elected Assistant Professor in 1952, and then Associate Professor (1959) and Full-time Professor in Pathological Physiology at the Faculty of Medicine in Skopje (1967). In the period 1950–66 he made a number of professional visits and stays, from a few weeks to a few months, to related institutes in Paris, Zagreb, London, Freiburg, Leeds and Moscow.

Prof. Tadžer was the founder and the first Director of the Institute of Pathological Physiology, and the Head of the Chair of Pathological Physiology in the period from 1952 to 1978. He served as Vice-dean, 1958–59 and Dean of the Faculty of Medicine in Skopje, 1964–65. Then he served as Vice-rector of the University in Skopje from 1966 to 1967. He was elected a regular member of the Macedonian Academy of Sciences and Arts in 1974.

Academician Prof. Dr. Ishak Tadžer died in Skopje in 2005.

14. Establishment of the Clinic and Chair in 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. Professor Dr. Petar Zdravev (Box 16) 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. The second Director of the Clinic and Head of the Chair of Ear, Nose and Throat Diseases was Assist. Professor Aleksandar Andreevski (Table 3). In 1960, Dr. Aleksandar Hadži-Boškov was elected as Assistant Professor in Otorhinolaryngology (Table 3).

Box 16. Petar Zdravev, Professor of Otorhinolaryngology [11, 12, 15, 22]



Prof. Dr. Petar Zdravev was elected teacher in 1947 and was one of the 19 lecturers in the first core group at the Faculty of Medicine in Skopje. He graduated from the Faculty of Medicine in Geneva, Switzerland, in 1919.

Prof. Zdravev was founder and the first Director of the Clinic of Ear, Nose and Throat Diseases in the period 1947–57, till his retirement in 1957. He was founder and the first Head of the Chair of Otorhinolaryngology in the period from 1950 to 1957.

Prof. Zdravev led the teaching process of the *Ear, Nose and Throat Diseases* course within the above-mentioned period, provided the newly-established Clinic with the necessary equipment, and educated younger colleagues who later developed into renowned experts.

Prof. Dr. Petar Zdravev died in Skopje in 1960.

Among the lecturers of the second group from PR Macedonia elected as assistant professors in the period from 1955–60, besides those already mentioned a few additional lecturers contributed to the development of certain clinics and institutes, as well as holding chairs within them: Petar Fildiševski and Stefan Stefanovski (Neuropsychiatry), Dimitar Miovski (Ophthalmology) and Stefan Stefkov (Microbiology), (Table 3).

As well as the above-mentioned leading teachers from Macedonia 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 FM-Skopje was founded in 1947 and over the past 65 years has gone through many developmental stages closely related to the development of the health service in Macedonia. The contribution of the Skopje FM to the development of health services and improvement in the health status of the population in the Republic of Macedonia has a special significance in the areas of continuous education of doctors and other medical staff, scientific research work, and in the provision of the highest medical service [1, 3, 4, 7, 13, 65].

The main indicators of the progress achieved and some of the inputs into the educational activities, scientific research and the highest medical services activities are presented in Boxes 17–19.

<p>Box 17. Main indicators of progress achieved in advancement and outputs from educational activities of the Faculty of Medicine in Skopje, 1947–2011 [1, 3, 4, 7, 13, 65, 66]</p>
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<p><i>Continuous education of doctors and other medical staff:</i></p>
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| <ul style="list-style-type: none"> • Continuous enrolment each year from 130 to 400 new students on undergraduate study courses; • Up to the end of 2011, 16,778 students had been enrolled, of whom 10,366 had graduated from the Skopje FM; • Up to the end of 2011, the number of medical doctors employed in the health services increased to 5,640 (3556 of these, or 63%, were specialist physicians); • The supply ratio of medical doctors to population (about 2.05 million in 2011), was 1 medical doctor per 365 inhabitants, and the ratio of doctors and nurses was 1: 2.2 in 2011; • From 1959 postgraduate (Masters) studies have been conducted; • From 1983 a two-semester teaching curriculum organized for specializing doctors was introduced; • In late 1980s, programmes for super-specializations were introduced; • There were other forms of education introduced such as: occasional courses, seminars, innovations in medicine and other forms of continuing medical education for physicians; |
|---|

- In 2003 postgraduate MPH studies in the field of public health were introduced and about 240 students were enrolled, and about 50 of them got Master of Public Health degree till the end of 2011;
- In 2011–2012 the implementation of a programme for doctoral studies started, as well as a programme for doctoral studies in public health;
- In the past 65 years, a large number of doctors from the Skopje FM have studied, worked, learned and adopted skills in medical faculties and eminent scientific institutions in various countries in Europe and worldwide, transferring and applying their new knowledge and experience to the educational process of the Faculty.

Well-prepared personnel in the health care system are the basic prerequisite and foundation for the organization and provision of quality health care services. The first generation at the Skopje FM comprised 153 students. The official promotion of the first 6 doctors who graduated from the Skopje FM was held on December 30, 1953 [66]. During the subsequent five years, until 1958, only 85 doctors from the first generation graduated. Most of these were promptly engaged in health service delivery throughout Macedonia, which was an important transfusion of physicians to the healthcare system [4, 7, 19].

Box 18. Main indicators of progress achieved in advancement and inputs from scientific research activities of the Faculty of Medicine in Skopje, 1947–2011 [1, 3, 66]

- Up to the end of 2011, 487 master's theses were defended (of which 47 were in the field of public health);
- Up to the end of 2011, 564 PhD theses were defended;
- Teachers and collaborating staff from the Skopje FM have participated in various national and international professional meetings and scientific councils, exchanging and transferring modern scientific achievements in medicine from developed countries in the world to Macedonia;
- Exchange of teachers and associates with other countries, professional scientific visits abroad, and lecturers invited to other medical faculties, and other forms of cooperation;
- All forms of cooperation have contributed to the establishment of permanent professional and scientific relations, as well as timely and extensive transmission and use of the latest medical and scientific advances in our environment.

After World War II, a scientific approach to the study of the specific pathology of the PR Macedonia was of paramount importance for the successful eradication of malaria, many diarrheal and other infectious diseases, for a decrease in morbidity and mortality in general, and for increasing the working ability, quality of life and life expectancy of the general population.

Box 19. Main indicators of progress achieved in advancement and inputs from highest medical service activities of the Faculty of Medicine in Skopje, 1947–2011 [1, 3, 66]

- Clinics and institutes of the Skopje FM today provide a highly differentiated and super-specialist health service for patients with the most serious illnesses;
- Regularly purchasing of modern medical equipment in the clinics and institutes;
- Providing continuous education of staff, introducing new diagnostic and therapeutic methods and keeping up with the current achievements in medical science and practice in the world;
- Malaria eradication in Macedonia 1968;
- Infant mortality rate decreased to 7.6 per 1000 live births in 2011;
- Abdominal typhus and paratyphus were drastically reduced and almost eradicated during 1980s.

The human resources, the first personnel, dozens of teachers from Macedonia and about the same number of teachers from medical faculties in Belgrade, Zagreb, Ljubljana and some countries in Europe had the main responsibility for educational, research and healthcare activities in the period of the establishment and initial development of the Skopje FM [17]. Later academic and scientific staff were recruited primarily from the graduates of the Skopje FM. 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, 16, 18, 67]. Some of them were appointed directors of the clinics or institutes and heads of chairs of the Skopje FM. 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. The Skopje FM is a member of the European and global community of institutions of this kind.

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 65 years later, in 2011, the number of teachers was 215 (Table 4).

The impressive growth in the number of the teaching staff shows the intellectual, educational and scientific potential of the Faculty. The Skopje FM now comprises 12 institutes and 3 teaching bases in the preclinical studies section, and 25 clinics, 3 institutes and 7 teaching bases that participate actively in the teaching and scientific activities of the clinical section [16, 18, 65]. The total number of chairs/departments within the Skopje FM is 35 [12, 66]. The

hard work and enthusiasm of teachers, doctors and other professional personnel in the monitoring and development of contemporary trends in medical science and practice have often exceeded the modest capabilities of the society.

Table 4

Structure of teaching and scientific personnel at the Faculty of Medicine in Skopje in 2011 (Dec. 30)

Lecturers		Scientific personnel		Auxiliary teaching staff	
Full professors	152	Scientific collaborators	36	Assistant lecturers	197
Associate professors	38	Research advisers	6	Junior assistants	73
Assistant professors	25				
Total	215	Total	42	Total	270

Today, the Skopje FM is a modern medical institution, which long ago surpassed the borders of Macedonia with its achieved results which have become an integral and respected part of European and worldwide medical science and practice. Macedonia officially became a part of the Bologna process for redesigning curricula and study programmes in higher education in September 2003 [65]. From the academic year 2005/06 the Skopje FM started to implement the European Credit Transfer System (ECTS) within the study programmes of the three areas: graduate, postgraduate and doctoral studies. With its extensive education, research and medical practice, the Skopje FM has justified the confidence of the Government and the citizens of the Republic of Macedonia while performing its important role as an institution of special social interest.

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 for the election of the lecturers at the Skopje FM were available from 1957, when the first issue of the Bulletin of the University of Skopje was published. Nevertheless, the additional data we have collected from various alternative sources provide a clear picture of the dominant and essential contribution of doctors and lecturers from Macedonia to the establishment and initial 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 65 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 10,000 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 scientific 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 Ss. Cyril and Methodius University in Skopje, and carries out the 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 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. Especially great appreciation goes to the first group of 15, and the second group of 22 teachers from Macedonia, in various fields of medicine, who, together with the teachers and other professional staff from Serbia, Croatia and other republics and countries in Europe, invested their efforts, enthusiasm, creativity, expertise and professionalism in the establishment and initial development of the Skopje FM. Thus the Skopje FM and Macedonia are indebted to them 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. 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.
6. 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.
7. 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>
8. Donev D, Polenakovic 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://manu.edu.mk/prilozi/current/CONTRIBUTIONS%20OF%20DOCTORS%20FROM%20SERBIA.pdf> Accessed: Sept. 15, 2012.

9. 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.

10. Andreevski A. (1968): Speech of Welcome at the celebration of the 20th jubilee of the establishment of the Faculty of Medicine in Skopje. [In Macedonian]. God Zb Med Fak Skopje, June 1967: 14: 5–14.

11. Žanteva-Naumoska M, Dimitrijevi M, Georgievska-Ismail 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.

12. 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.

13. 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.

14. 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.

15. Lazarevski M, Nikodijević B, Velkov K, Čaparoski 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.

16. 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 Accessed: Oct. 6, 2011.

17. 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.

18. 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.

19. 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.

20. Muratovski G, Stavridis S, Referees. Report on election of university lecturer in radiology (Ivan Anastasov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 6, Oct 1957: 27–30.

21. Muratovski G, Andreevski A, Šukarov Lj, Referees. Report on election of assistant professor in radiology (Ivan Anastasov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 13, Sept 1958: 14–16.

22. Ristovski B, Editor-in-Chief. Macedonian Encyclopedia, Part I, A-Lj. [In Macedonian]. Macedonian Academy of Sciences and Arts, Skopje. Skopje, 2009: 812.

23. Tofoski J, ed. 60 Years Macedonian Medical Association 1945–2005. [In Macedonian]. Macedonian Medical Association, Skopje, 2008: 378.

24. Niketić B, Bujan V, Tavčar I, Referees. Report on election of professor in internal medicine (Dimitar Arsov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 13, Sept 1958: 9–13.

25. Niketić B, Bujan V, Tavčar I, Referees. Report on election of professor in internal medicine (Dimitar Arsov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 26, Jan 1960: 3–6.

26. Polenakovic M. Arsov Dimitar, Founder of the modern internal medicine in the Republic of Macedonia (1908–2008). Prilozi-Contributions, Sec. Biol. Med. Sci., MASA, 2008: 29(2): 371–4. Available from: <http://manu.edu.mk/prilozi/his.pdf>

27. Berić M, Bujan V, Referees. Report on election of assoc. professor in gynaecology and obstetrics (Anton Čakmakov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 4, Jul 1957: 35–42.

28. Vidaković S, Dragojević B, Muratovski G, Referees. Report on election of professor in gynaecology and obstetrics (Anton Čakmakov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 36, Feb 1961: 14–22.

29. Ristovski B, Editor-in-Chief. Macedonian Encyclopedia, Part II, M-Š. [In Macedonian]. Macedonian Academy of Sciences and Arts, Skopje. Skopje, 2009: 813–1671.

30. Dimitrijević M, Kovačevski S. Prim. Dr. Gjorgi Gavrilski (1911–1987). Macedonian Medical Society, Association of the Doctors of General Medicine in R. Macedonia and Sv. Nikole Health Centre. Sv. Nikole, Skopje, 2007: 127.

31. Dragojević B, Sušec Gj, Referees. Report on re-election of assist. professor in surgery (Panče Karagjozov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 20, May 1959: 4–9.

32. Dragojević B, Čakmakov A, Referees. Report on election of assoc. Professor in surgery (Panče Karagjozov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 28, Apr 1960: 5–11.

33. Džočkov J. Docent Dr. Haralampie Mančev – Unusual Cessation a one brilliant career. Vox Medici, Oct 2008; 17(60): 20–4.

34. Križan Z, Stavridis S, Referees. Report on re-election of assistant professor in anatomy (Leon Melkonijan) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 1, May 1957: 21–9.
35. Muratovski G, Arsov D, Fleger J, Referees. Report on election of professor in dermatovenerology (Done Moivski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 32, Feb 1960: 14–20.
36. Neubauer R, Karakašević B, Niketić B, Referees. Report on election of full professor in physiology (Gligor Muratovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 17, Feb 1959: 1–4.
37. Petrović L, Dragojević B, Referees. Report on election of assoc. professor in dentistry (Dimitar Smilev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 29, May 1960: 4–10.
38. 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.
39. Kovačevski S, Dimitrijević M, Jančeva Lj, Mirčevska K. Dr. Boris Spirov (1897–1974). Kočo Racin Cultural Centre, Kičevo. Drugovo-Kičevo, 2006: 225.
40. Dragojević B, Čakmakov A, Referees. Report on election of assoc. professor in surgery (Sotir Stavridis) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 28, Apr 1960: 12–17.
41. Djuričić I, Arsov D, Referees. Report on election of assoc. professor in pathologic physiology (Ishak Tadžer) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 16, Jan 1959: 22–26.
42. Arsov D, Miletić D, Miovski D, Referees. Report on re-election of assoc. professor in pathologic physiology (Ishak Tadžer) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 77, Nov 1964: 3–10.
43. Dragojević B, Smilev D, Referees. Report on election of associate professor in otorhinolaryngology (Aleksandar Andreevski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 34, Dec 1960: 3–10.
44. Arsov D, Muratovski G, Tadžer I, Referees. Report on election of associate professor in internal medicine (Penčo Davčev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 50, Apr 1962: 1–7.
45. Arsov D, Tadžer I, Referees. Report on election of assistant professor in paediatrics (Hristo Duma) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 13, Sept 1958: 24–6.
46. Arsov D, Dragojević B, Perčinkovski R, Referees. Report on election of assoc. 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.
47. Dragojević B, Karagjozov P, Referees. Report on election of assistant professor in surgery (Krstó Georgiev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 20, May 1959: 17–22.

48. 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.
49. Andreevski A, Serafimov K, Referees. Report on election of assoc. Professor in otorhinolaryngology (Aleksandar Hadži-Boškov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 165, Jan 1972: 21–5.
50. Arsov D, Miletić D, Muratovski G, Referees. Report on election of assoc. 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.
51. Berić M, Stavridis S, Referees. Report on election of assistant professor in gynaecology and obstetrics (Aleksandar Lazarov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 4, July 1957: 43–53.
52. Dragojević B, Čakmakov A, Andreevski A, Referees. Report on election of assistant professor in ophthalmology (Dimitar Miovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 28, Apr 1960: 12–17.
53. Arsov D, Muratovski G, Karakašević B, Referees. Report on election of assoc. professor in infectious diseases (Save Mironski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 76, Oct 1964: 46–57.
54. Arsov D, Davčev P, Miletić D, Referees. Report on election of assoc. 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.
55. Dragojević B, Čakmakov A, Referees. Report on election of assistant professor in surgery (Jovan Panovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 13, Sept 1958: 27–31.
56. Arsov D, Tadžer I, Referees. Report on election of assistant professor in internal medicine (Radovan Perčinkovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 13, Sept 1958: 17–23.
57. Muratovski G, Tadžer I, Davčev P, Referees. Report on election of assistant professor in paediatrics (Avram Sadikario) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 11, March 1958: 19–26.
58. Berić M, Stavridis S, Referees. Report on election of assistant professor in gynaecology and obstetrics (Metodija Stankovski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 4, July 1957: 62–71.
59. Arsov D, Fildiševski P, Andreevski A, Referees. Report on election of assoc. 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.
60. 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.

61. Berić M, Stavridis S, Referees. Report on election of assistant professor in gynaecology and obstetrics (Ljubomir Šukarov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 4, July 1957: 54–61.
62. Duma H, Arsov D, Sadikario A, Referees. Report on election of assistant professor in paediatrics (Dušan Teodosievski) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 20, May 1959: 10–3.
63. Bošnjaković B, Arsov D, Referees. Report on election of assoc. professor in radiology (Dimitar Tefčev) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 66, Oct-Nov 1963: 25–30.
64. Smilev D, Karagjozov P, Referees. Report on re-election of assoc. professor in dentistry (Dimitar Železarov) at the Faculty of Medicine in Skopje. [In Macedonian]. Bulletin of the University in Skopje No. 99, Nov 1966: 5–8.
65. 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.
66. 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.
67. 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.

Резиме

ПРИДОНЕС НА ДОКТОРИТЕ ОД МАКЕДОНИЈА ВО ОСНОВАЊЕТО И ИНИЦИЈАЛНИОТ РАЗВОЈ НА МЕДИЦИНСКИОТ ФАКУЛТЕТ ВО СКОПЈЕ, РЕПУБЛИКА МАКЕДОНИЈА

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Цел: Да се прикажат околностите, иницијативите и најзначајните активности на процесот и актерите, со посебен акцент на придонесот на докторите од Македонија, во основањето и иницијалниот развој на Медицинскиот факултет во Скопје, Македонија, во периодот од 1947–1960 г. и потоа.

Методи: Ретроспективна студија базирана на архивски материјали, енциклопедии и јубилејни 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 во есента 1947 г., а првото предавање е одржано на 3.XI 1947 г.

Околу 15 доктори од Македонија – наставни кадри, во периодот од 1947–1954, се придружиле на иницијативата од Владата на Македонија за основање на Медицинскиот факултет во Скопје и, дополнително 22 наставници од Македонија, кои биле избрани во доценти во периодот од 1955–1960 г. го поддржале неговиот иницијален развој. Тие одиграле водечка улога во создавањето и/или развојот на голем број катедри, институти и клиници во новоформиранiot Медицински факултет во Скопје во 1947 г. и во првите 10–15 години од неговиот развој.

Заклучок: Медицинскиот факултет во Скопје, основан во 1947 г., имаше 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 обезбедувањето на здравствената заштита на населението во Македонија. Придонесот на докторите од Македонија во основањето и иницијалниот развој на Медицинскиот факултет во Скопје, во периодот од 1947–1960 г. и потоа, беше доминантен и суштински.

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

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