

**PROFESSOR RICHARD BURIAN (1871-1954)
FOUNDER OF THE INSTITUTE OF MEDICAL PHYSIOLOGY, SCHOOL OF
MEDICINE, UNIVERSITY OF BELGRADE**



A Life dedicated to creative work, of high ideals, combined with a search for knowledge, truth, and giving of community service, benevolence and philanthropy

The name of Professor Richard Burian, the founder of the Institute of Medical Physiology, Belgrade, holds an honoured place in the School of Medicine. He was born on 8th January, 1871 in Vienna, where he graduated from the School of Medicine (in 1894). In the period from 1895 to 1897, he published 4 papers while working as an assistant to Professor Neusser's clinic on physiological and chemical problems, and at the University chemical laboratory of Professors Liben and Mautner. In 1897, he transferred, by invitation, to the University of Leipzig, where he investigated physiological and chemical problems. He graduated in 1899 with the title "*Die dissimilations purine der sangetiere*" and after publication of his work entitled "*Die Dussunukatuibsozrube der Sazgetuere*", he became an Assistant Professor of Physiology in 1900, under Professor Evald Hering who put him in charge of the teaching related to metabolism. During 1903, Richard Burian was proposed for a full Professorship (Physics) at *Hochschule für Bodenkultur* in Vienna. However, at Professor Dorn's invitation, Richard Burian spent the winter of 1903/4 at the famous Zoo-Oceanographic Institute in Naples. He became the head of a newly founded Department of Physiology there and after being made Professor in 1911, he stayed until the beginning of the First World War (1914). He gathered at this Institute, thanks to his commitment and enormous experience, a great number of famous scientists who had been doing research on sea invertebrates (Fuchs, Sulze, Goldchmidt, Scaffidi, Baner, Sulima). During this time, Richard Burian was named a full Professor of Medical Chemistry at the University of Innsbruck (1910) and a full professor of Physiology at the College of Veterinary Medicine in Vienna (1912).

With the outbreak of war, Richard Burian returned to Leipzig where he helped his old teacher, Professor Hering, by taking over the whole of the teaching of Physiology at the School of Medicine. Here he remained until 1916. Then, Richard Burian left Leipzig due to tensions related to the bringing of Professor Garten (from Gissen) to the the School of Medicine in Leipzig.

Although he came to Yugoslavia at the invitation of the School of Medicine in Ljubljana (today Slovenia), and though a full Professor of different disciplines at Vienna, Innsbruck, Hannover and Leipzig, it was not until 1920 that he was made, at the insistence of Professor Milan Jovanovic–Batut, a full Professor of Physiology at the newly founded School of Medicine in Belgrade.

During the winter of 1922/1923, at the School of Medicine in Belgrade, Richard Burian started with his lectures in German. However, after two years, he gave all his lectures in the Serbian language. As well as organization of all the teaching, his main concern was the setting up of the Institute of Physiology & Histology. For this purpose he was given the former building of the English-Serbian Children's Hospital. It is due to his wealth of experience, incredible energy and tremendous effort, that the Institute of Physiology and Histology was opened in 1927.

In the first few years, within the Institute of Physiology (today – the Institute of Medical Physiology), scientific research was progressing in several departments. These included Physico-Chemistry, Chemical Physiology, Microchemistry, Electrophysiology (which contained facilities for photographic recording), and Graphics working with the operating theatres. These were all supported by an academic library and a mechanical workshop. In addition to the lecture theatres and laboratories, due to the commitment of Richard Burian and the generous memorial fund of Dr. Elsie Inglis of London, it was possible to build several departments for experimental work. In 1916, Dr Elsie Inglis was the first woman to receive the highest Serbian decoration – The Order of the White Eagle. She was a member of “the Scottish Women's Hospital” (the name refers to the Military-Medical Unit that was set up during the First World War as a gesture of help from the women of Scotland to the Serbian people). In memory of this great friend of the Serbian people, in 1929, a memorial table was placed in the central hall of the Institute of Medical Physiology, at the initiative of Professor Richard Burian.

Apart from being one of the founders of the School of Medicine in Belgrade and the Dean or Vice-Dean between 1923 and 1934, Prof. Burian was also involved with the creation of both the School of Veterinary Medicine (1936), and the School of Pharmacy of Belgrade (1939), of which he was the first head, respectively. These two schools were housed in the same building. He was elected as a corresponding member of the Serbian Royal Academy of Science in 1926. Due to the tremendous effort of Prof Burian, the Serbian School of Medicine and Physiology was able to keep pace with the corresponding institutions in Europe from their conception.

The personality of Richard Burian, together with his reputation in science, and authority as a professor, attracted numerous associates not only at the Institute of Physiology in Belgrade, but also with other Professors of Physiology within Belgrade (the School of Veterinary Medicine, the School of Pharmacy and the School of Agriculture). He also collaborated well with other schools of medicine in former Yugoslavia: Professors Milutin Neskovic, Ilija Djuricic and Bozidar Nikolic in Belgrade, Aleksandar Sabovljevic in Sarajevo, Radmilo Anastasijevic in Novi Sad, and Aleksandra Volkanoska in Skopje.

Professor Richard Burian retired in 1938, but he continued with his experiments at the Institute of Physiology until the beginning of the Second World War. Sadly, on 6th April 1941, one of the first Nazi bombs to land on Belgrade destroyed, and then set on fire the architecturally beautiful

building. This was a disaster as the creative work of Professor Richard Burian accumulated over many years was destroyed instantly. However, forty books with signatures of the Burian family members were found beneath the ruins of the Institute. These included books by Chekhov, Tolstoy, Goethe, Seneca and numerous others from the 19th century, together with about 200 professional books in German, French and English. Also saved were numerous scientific articles that he had obtained through personal contacts.

The attitude of the family Burian towards the country and Serbian people during the war under the Nazi occupation is best illustrated by an example from the diaries/memoirs of Professor Aleksandar Kostic. From these Prof. Kostic noted that at a quiet suggestion from his wife Mrs. Kostic, that they, the family Burian, as Austrians, would probably have better treatment concerning supplies of food and in general, Richard Burian reacted: “What do you mean, *chere amie*, we are not, for God’s sake, “*Folksdeutchers*” but Yugoslavs. We are that now and that’s what we are going to stay in the future!”

When Belgrade was liberated in October 1944, students of Professor Burian and especially a major of the national-liberation army, Assistant Professor Aleksandar Sabovljević, remembered their old and lonely professor. Prof. Sabovljević (later professor and founder of the School of Medicine in Sarajevo - today Bosnia and Herzegovina) provided him with the room in the former Main Military Hospital (today the Military Medical Academy) where he had complete care. After his recovery, Professor Burian stayed with his step-son who lived in Belgrade. After many invitations from his son, Herman, in 1947 Prof. Burian immigrated to the USA, to the small town of Hanover near Boston. Prof. Burian hoped that he would come back to Belgrade some day and continue with his research. Sadly this was not to be and he died in New York on 2nd May, 1954. He led a life that was dedicated to high ideals. He was an excellent intellectual in the real sense of the word. He handed down his love towards literature of the world classics, music and philanthropy to his family.

Richard Burian was engaged in experimental research in many fields. These included metabolism of purines, methodology of nerve and muscle research in mollusks, contraction of damaged muscle, function of neuromuscular synapses, function of kidney and genito-urinary system, function of biological membranes and the physiology of swallowing.

Professor Richard Burian was a recipient of several medals and honors: the Order of the Romanian Crown of 3rd class (in 1931), the Order of Saint Sava of 2nd class (in 1934) and the Order of the Yugoslav Crown of 2nd class (in 1936). In memory and respect of the founder and first director, the Institute of Medical Physiology of the School of Medicine bears his name. At the suggestion of the School of Medicine in Belgrade, (in 1971) one street in Belgrade bears the name of the physiologist Professor Richard Burian. He was an inspiration, both as a scientist and philanthropist.

Selected references

Über Sitosterin
Ein Beitrag zur Kenntniss der Phytosterine
Richard Burián

Monatshefte für Chemie / Chemical Monthly, Volume 18, Number 1 / December, 1897

Burian R, Schur H. 1900 Ueber die Stellung der Purinkörper im menschlichen Stoffwechsel.
Arch f d ges Physiol. 80:241–350.

Burian, Richard. 1904-05. Über die oxydative und die vermeintliche synthetische Bildung von Harnsäure in Rinderleberauszug. Zeitschrift für Physiologische Chemie 43: 497-531

Burian, Richard. 1905. Ein letztes Wort zu den Permanganatversuchen von Kutscher und Seemann. Zeitschrift für Physiologische Chemie 45: 351-354

Das quantitative Verhalten der menschlichen Harnpurinausscheidung
Nochmalige Feststellung und kritische Prüfung unserer bisherigen Ergebnisse, zugleich Antwort
auf O. Loewi's Einwände
Richard Burian and Heinrich Schur
Pflügers Archiv, Volume 94, Numbers 5-6 / February, 1903

Chemie der Spermatozoen. I.
Richard Burian
Reviews of Physiology, Biochemistry and Pharmacology, Volume 3, Number 1 / March, 1904

Chemie der Spermatozoen. II
Richard Burian
Reviews of Physiology, Biochemistry and Pharmacology, Volume 5, Number 1 / December,
1906

Funktion der Nierenglomeruli und Ultranitration
Richard Burian
Pflügers Archiv, Volume 136, Number 1 / December, 1910

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