



ROSTISLAV S KARPOV - 85 YEARS

8 September 2022 marks the 85th anniversary of the birth of Rostislav Sergeyevich Karpov, Doctor of Medical Sciences, Professor and Full Member of the Russian Academy of Sciences.

Karpov Rostislav Sergeyevich was born in Tomsk on 08 September 1937 and successfully graduated from the Tomsk Medical Institute in 1960, specialising in General Medicine. He worked his way up from clinician at the Tomsk Medical Institute (1962) to Head of the Department of Departmental Therapy with a course in clinical pharmacology at the State Budgetary Educational Institution of Higher Professional Education Siberian State Medical University of the Russian Ministry of Health (from 1979 to 2018) and Director of the Research Institute of Cardiology, Tomsk (1985-2015). Since 30 June 2015, he has been working as the Scientific Director of the Research Institute of Cardiology at the Tomsk Scientific Research Centre, and since 2016, he has been the Head of the Scientific Management of the Tomsk Scientific Research Centre.

Rostislav Sergeyevich Karpov is a prominent Russian scientist and therapeutic cardiologist who has received well-deserved recognition both in Russia and abroad. Behind his shoulders lies a

worthy school of life, rich experience in medical and scientific-pedagogical activity - more than 60 years in the service of good, his patients, students and colleagues. The foundation and development of the cardiology service in Siberia is associated with his name. With the direct involvement of R.S. Karpov, the Siberian branch of the All-Union Cardiology Scientific Centre of the USSR Academy of Medical Sciences (now the Cardiology Research Institute) was opened in Tomsk in 1980 and developed into a major research, clinical and educational complex in the east of the country, with the Tyumen branch (1985-2016) being the leading cardiology institution in Siberia and the Far East for 36 years.

The main priorities of Rostislav Sergeyevich's scientific and organisational activities were the introduction of the most modern technologies for the prevention, diagnosis and treatment of diseases of the cardiovascular system in the region and the improvement of specialised cardiological care for the scattered population. On the initiative of R.S. Karpov, the first cardiology outpatient clinic in the Urals with a capacity of 40 thousand visits per year was opened in Tomsk. Under his leadership, for the first time in Russia, a mobile automated system for cardiological care of the scattered population was developed and introduced into practical health care in the Tomsk region. In order to develop innovative technologies, the Siberian Federal Arrhythmological Centre was established in 1998 on the basis of the Department of Surgical Treatment of Complex Cardiac Arrhythmias. Over the years of its operation, it has been rightly recognised as a leading regional centre for arrhythmology, significantly determining progress in the treatment of complex cardiac arrhythmias in the population of Siberia and the Far East. In 2010, with the active support of R.S. Karpov, an innovative structure «Children's Heart Centre» was established on the basis of the Department of Paediatric Cardiology to provide access to modern high-tech medicine for children and adolescents with cardiovascular diseases. The Paediatric Heart Centre is recognised as one of the leading clinics in Russia in terms of the range of procedures and treatment outcomes. The Institute's clinic, headed by Academician R.S. Karpov for 30 years, is a unique cardiovascular cluster that enables solving urgent public health problems in the fields of «cardiology» and «cardiovascular surgery». The clinic is among the «top five» federal medical institutions involved in providing high-tech medicine to the citizens of the Russian Federation.

In 2016, R.S. Karpov was one of the initiators of the unification of six Tomsk medical research institutes (cardiology, oncology, medical genetics, psychiatry, pharmacology and regenerative medicine, obstetrics, gynaecology and perinatology) into a single Tomsk National Medical Research Centre of the Russian Academy of Sciences, which within 5 years became the largest scientific medical organisation in the country and ranked 1st in the scientific rating among the organisations of the Ministry of Education and Science in the field of «Clinical Medicine».

Rostislav Sergeyevich made a significant contribution to the development of medical science, including cardio-rheumatology. He proposed a new comprehensive clinical-immunological and morphological approach to diagnosing the activity of rheumatic processes using computer data processing. This allowed optimising the diagnosis of rheumatic process activity from fundamentally new positions, which was of great practical importance for the early diagnosis of rheumatism and its recurrence. The results of his research have contributed to the development of modern ideas about the pathogenesis of rheumatism as an immunologically mediated disease. He studied and described the features of the clinical manifestations of rheumatic process activity at different stages of the disease, which was also of great scientific and practical importance. Together with the Academician of the Russian Academy of Medical Sciences V.V. Pekarsky, he organised one of the first systems in Russia for the continuous therapeutic care and surgical treatment of patients with rheumatic heart disease.

Professor R.S. Karpov was the organiser and first dean of the Faculty of Advanced Training at the Tomsk Medical Institute (1979), which was of fundamental importance for the professional training of doctors in the region. A brilliant lecturer, he was actively involved in the pedagogical process. On his initiative and with his direct participation, functional and immunological diagnostics laboratories were created, which later became interclinical and facilitated the implementation of new diagnostic technologies in practical health care. The result of R.S. Karpov's scientific, educational and practical activities during his active supervision of the rheumatology service of Tomsk Region was the reduction of morbidity, disability and mortality of rheumatological patients.

Well-known works by Academician R.S. Karpov in co-authorship with Professor V.M. Yakovlev and other colleagues, devoted to manifestations of hereditary imperfections of connective tissue development, cardiac dysplasia - approaches to diagnosis and prognosis assessment. Special attention was paid to connective tissue abnormalities of the valves and subclavian structures, as well as the entire fibrous framework of the heart, which determine the severity of structural-functional and electrophysiological remodelling of the left ventricle of the heart.

For more than 30 years of his scientific and clinical activity, Rostislav Sergeyevich has devoted his research to such pressing problems of modern medicine as atherosclerosis and chronic coronary heart disease, which form the basis of the modern «epidemic» of cardiovascular disease. Under his leadership, a professional team of scientists and doctors, whose work is recognised in Russia and abroad, has been formed within the framework of this theme. They successfully solve the priority tasks of diagnosis, treatment and prevention of chronic ischaemic heart disease, dyslipoproteidaemia, arterial hypertension, type 2 diabetes mellitus and cardiomyopathies on the basis of modern achievements of medical science and practise.

The basic scientific researches of R.S. Karpov and his students are devoted to the pathogenetic, pathophysiological, diagnostic and therapeutic aspects of combined atherosclerosis, including simultaneous lesions of the coronary and extracerebral arteries. Special attention has been given to the study of blood supply to the heart and brain, mechanisms of regulation of systemic, coronary and cerebral circulation, imaging of lesions of the coronary and carotid arteries, methods of functional assessment of coronary, myocardial and cerebrovascular reserves, and treatment of combined coronary and cerebrovascular insufficiency.

The work on the physiology of the heart and respiratory organs, dealing with the functional relationships in the unified cardiorespiratory system, is of primary character. The study of the clinical and physiological features and the diagnosis of pathological shifts in the oxygen transport system in cardiac and pulmonary dysfunction have been of great importance. The variants of adaptation of the organism's functional systems and the development of ischaemic heart disease and chronic obstructive pulmonary disease in northern conditions were considered; approaches to the treatment of combined forms of ischaemic heart disease, arterial hypertension and chronic obstructive pulmonary disease in the high latitude population were proposed.

R.S. Karpov created a famous therapeutic and cardiological school of science. His scientific works adequately reflect the main stages in solving the most important problems of modern medicine and health care. His main research areas are rheumatology, cardiology, clinical pharmacology, clinical and population epidemiology, prevention of cardiovascular diseases, and public health and health care. He is the author of more than 1,000 scientific papers, including 38 monographs and 43 patents for inventions. Under his guidance, 42 doctoral theses and 81 Ph.D. dissertations were written and defended. Students of Rostislav Sergeyevich successfully work in the fields of therapy, cardiology, rheumatology and clinical cardiology in more than 40 leading organisations in the country and the world.

Rostislav Sergeyevich has received numerous state and public awards for his outstanding services.

Rostislav Sergeyevich's entire life has been dedicated to the true service of his patients, students and colleagues. A clever and creative person, he exemplified an active approach to life, dedication, commitment, high responsibility, devotion to the chosen cause and love for people in all his offices. Today he still stands in the ranks and generously shares his mature wisdom and invaluable human and professional experience with the people around him.

The administration and staff of the Research Institute of Cardiology of the Tomsk Research Centre warmly congratulate Rostislav Sergeyevich Karpov, teacher, friend and colleague, on his anniversary and wish him good health, inexhaustible energy and optimism, implementation of plans, creative inspiration and all the best! May happiness and success accompany you in everything! We wish you joy, kindness and prosperity, warmth of heart and support from students, colleagues, relatives and friends!