

REVIEW ARTICLE

PROFESSOR ALEKSANDER BOGUSŁAW KABSCH – LAUDATION

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Juliusz Huber

Department of Pathophysiology of Locomotor Organs, University of Medical Sciences, Poznań,
Poland

ABSTRACT

“A pioneer of basic and clinical research in the field of biomechanics, orthopaedics and neurophysiology, as well as rehabilitation, related to the diagnosis and treatment of patients with musculoskeletal disorders of various etiologies.”

The laudation for Professor Aleksander Kabsch was delivered on the occasion of honoring him with the “Wiktor Dega Medal” as part of the International Day of Persons with Disabilities in December 2024. The medal was awarded by the Chapter of the Wiktor Dega Orthopedic and Rehabilitation Clinical Hospital of the Karol Marcinkowski University of Medical Sciences in Poznań after a unanimous motion of the Institute Council. The content of the laudation modestly outlines the outstanding scientific and organizational activity of the Professor in the national and international arena. This is an expression of respect for the contribution of Aleksander Kabsch to the development of science in basic and clinical research on the diagnosis and treatment of patients with disorders of the musculoskeletal system of various etiologies in the field of biomechanics, orthopedics, neuroanatomy and neurophysiology, as well as broadly understood rehabilitation.

Keywords: Aleksander Kabsch, laudation, biomechanics

STRESZCZENIE

„Pionier badań podstawowych i klinicznych w zakresie biomechaniki, ortopedii i neurofizjologii oraz rehabilitacji, związanych z diagnostyką i leczeniem chorych z dysfunkcjami narządu ruchu o różnej etiologii”.

Laudacja dla Pana Profesora Aleksandra Kabscha została wygłoszona z okazji wręczenia mu „Medalu im. Wiktora Dęgi” w ramach Międzynarodowego Dnia Osób z Niepełnosprawnościami w grudniu 2024 roku. Medal został przyznany przez Kapitułę Ortopedyczno-Rehabilitacyjnego Szpitala Klinicznego im. Wiktora Dęgi Uniwersytetu Medycznego im. Karola Marcinkowskiego w Poznaniu po jednogłośnym wniosku Rady Instytutu. Treść laudacji skromnie nakreśla wybitną działalność naukową i organizacyjną Pana Profesora w środowisku ogólnopolskim oraz międzynarodowym. Jest to wyraz szacunku dla wkładu Aleksandra Kabscha w rozwój nauki w badaniach podstawowych i klinicznych nad diagnostyką i leczeniem chorych z dysfunkcjami narządu ruchu o różnej etiologii w zakresie biomechaniki, ortopedii, neuroanatomii i neurofizjologii oraz szeroko pojętej rehabilitacji.

Słowa kluczowe: Aleksander Kabsch, laudacja, biomechanika

Author responsible for correspondence:

Juliusz Huber

Department of Pathophysiology of Locomotor Organs,
University of Medical Sciences,
28 Czerwca 1956 No 135/147, 61-545, Poznań, Poland

Email: juliusz.huber@ump.edu.pl

 <https://orcid.org/0000-0002-8671-0497>

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Aleksander Bogusław Antoni Kabsch was born in Śrem on January 21, 1928, in the family of Antonina, née Malińska, and Władysław Kabsch. He is the son, grandson, and nephew of Greater Poland Insurgents. After the World War II he attended the secondary school in Ostrów Wielkopolski, where he graduated in 1947. He is a physician by education, a specialist in orthopedics, a pioneering researcher of the biomechanics of the musculoskeletal system in normal and pathological conditions. In the years 1947–1952 he studied at the Faculty of Medicine of the Poznań Medical Academy, graduating a medical doctor's degree in August 1952 (Figure 1).

Figure 1. Aleksander Kabsch – M.D.

During his studying, he worked at the Poznań Medical Academy in the Department of Descriptive and Topographic Anatomy as a Junior Assistant (1949–1951), Assistant and Professor's Assistant (1952–1963) under the supervision of Józef Kołaczkowski. His interest in biomechanics resulted in PhD in medical sciences at the Faculty of Medicine of the Poznań Medical Academy in 1961 and Habilitation in 1967 in the field of medical sciences in orthopedics/biomechanics. He took over the management of the Department in 1969. In November 1977, he was appointed the Associate Professor, in 1989 the Titular Professor nominated by the President of the Republic of Poland, and in 1990 he received the Full Position of Professor.



Figure 2. Aleksander Kabsch – 1977

In 1952–1958 he also worked closely with the Orthopedic Clinic of the Medical Academy, specializing in the field of orthopedics and rehabilitation. A student and a co-worker of Professor Wiktor Dega, he was a direct collaborator of Professor Kazimiera Milanowska and Professor Janina Tomaszewska in the field of orthopedics and rehabilitation (Figure 3).

In 1968, he joined the Poznań College of Physical Education, where he began teaching biomechanics, which was included in the curriculum of studies at the Department of Biomechanics. His expert scientific knowledge of biomechanics and anatomy, as well as clinical specializations in the field of the musculoskeletal system in orthopedics and rehabilitation, as well as exceptional organizational skills, enabled him to create and manage the Department of Biomechanics (1969–1984) (Figure 4), the Department of Clinical Biomechanics (1984–2001) and the Department of Biomechanics and Kinesiotherapy (1990–2001).



Figure 3. Kazimiera Milanowska, Aleksander Kabsch, Wiktor Dega



Figure 4. The Teacher's Day in 1971, and meeting with the Rector of Academy of Physical Education in 1979

In 1969–1972 he was Vice-Dean of the Faculty of Physical Education. He also led to the establishment in 1972 of the Biomechanics Laboratory at the Academy of Physical Education branch in Gorzów Wielkopolski, where he also gave lectures and trained scientific staff. In 1970 he created a rehabilitation program in Mongolia as a World Health Organization expert. He was a co-founder and Director of the Institute of Rehabilitation at the Eugeniusz Piasecki Academy of Physical Education in Poznań (1993–1998) (Figure 5).



Figure 5. Inauguration of the academic year 1975–1976

Professor Aleksander Kabsch was democratically elected in 1981 to the honorable position of Rector of the Academy of Physical Education, which he held in the years 1981–1985. He outlined ambitious plans for the development of the Academy, including its opening to the world, modeling it on western universities, and introduced democratic forms of management.



Figure 6. Inauguration of the academic year 1983–1984 as the Rector of the Academy of Physical Education

He developed a plan for the construction of new sports and educational facilities, especially an athletics hall and a student residence in Gorzów Wielkopolski (Figure 7). He also made the first efforts to obtain the right to award the degree of habilitated doctor. The possibility

of holding the office of Rector lasted only four years. During his second term, for political reasons, standing in defense of democracy, he was dismissed from this function by the Minister of Education.



Figure 7. Unveiling of the plaque of Eugeniusz Piasecki, patron of the Academy of Physical Education in Poznań in 1982

It is difficult to list all of Professor Aleksander Kabsch versatile scientific interests, but the most important of them are:

- Biomechanics of human gait, especially in aspects of selected sports disciplines of disabled people, with particular emphasis on skiing in people with amputations,
- Biomechanics of gait in thigh prostheses,
- Issues of muscle function testing: measurement methods and techniques, also in specialist sports training,
- Diagnostics, prevention and treatment of human body overloads in professional work and in sports, also in an ergonomic approach.

The researches were carried out in cooperation with the Rehabilitation Commission of the Polish Academy of Sciences and other international organizations of rehabilitation and sports. He is the author of over 190 scientific publications, 6 books and patents.

In the field of training of scientific staff, Professor Aleksander Kabsch was the supervisor of 18 doctoral dissertations in the field of medical sciences and physical culture sciences. Four direct collaborators under the patronage of the Professor Aleksander Kabsch obtained post-doctoral degrees.

Professor Aleksander Kabsch officially finished his work at the Academy of Physical Education in Poznań at the age of 73 in 2001, but he has served other universities and institutions with his great experience and didactic, organizational and scientific knowledge, not only

in Poland but also abroad, also to this day, e.g. Medical University of Bydgoszcz, Collegium Medicum in Toruń, Higher School of Physiotherapy in Wrocław, Higher School of Education and Therapy in Poznań (Figure 8). He provided monograph lectures on social rehabilitation at the Faculty of Social Sciences of the Adam Mickiewicz University in Poznań and at Poznań University of Technology.



Figure 8. A lecture at the Conference organized by The Higher School of Education and Therapy in Poznań

I recall Professor Aleksander Kabsch first time when he hired me in 1981. He was the frontier organizer of the neuroanatomical and neurophysiological approach to the education of students at the Academy of Physical Education in Poznań; during his term as the Rector, the Department of Morphological and Functional Bases of Movement was created at the Eugeniusz Piasecki Academy of Physical Education, headed by Professor Kazimierz Grottel (Figure 9). This facility was later transformed into the Department of Neurobiology. Especially in the difficult period for Poland after 1981, together with Professor Kazimierz Grottel and Professor Jadwiga Koczocik-Przedpelska, he directed the role of clinical neurophysiology in the Poznań, as important in the assessment and determination of possible effects of treatment of patients with dysfunction of the musculoskeletal system.



Figure 9. 10th anniversary of the Department of Morphological and Functional Bases of Movement

Professor Aleksander Kabsch skillfully and pleasantly combines professional, scientific activity with social contacts, an example of which was the co-organization, together with Professor Kazimierz Grottel, of the cyclical Spring Neurobiology Colloquiums at meetings at the sport center in Chycina. This skill allowed the Poznań scientific community to establish contacts with world-class scientists from the Marceli Nencki Institute of the Polish Academy of Sciences in Warsaw, including Professors Elżbieta Jankowska, Teresa Górska, Urszula Ślawińska, Maria Piotrkiewicz and Stefan Kasicki (Figure 10). With many of them, this resulted in joint projects and scientific works of international scope.



Figure 10. Photos from one of Spring Neurobiology Colloquium with scientists from the Marceli Nencki Institute of the Polish Academy of Sciences in Warsaw

In professional contacts, Professor Aleksander Kabsch uses nice, reliable argumentation with an admixture of factual, yet gentle persuasion, *de facto...* it is difficult ever to refuse his requests.

Professor Aleksander Kabsch is a co-founder, leader and elected member of many scientific societies and consulting institutions of national and international scope: Polish Medical Society, Voivodeship Consultant for Rehabilitation (1958–1975), Expert of the Physical Culture and Sports Committee, Polish Academy of Sciences – Committee for Rehabilitation and Social

Adaptation (1984–1999), Commission for Rehabilitation Engineering (since 1990), Committee for Physical Culture (1987–1999), Committee for Rehabilitation, Physical Culture and Social Adaptation of the Polish Academy of Sciences (since 1999), Commission for Medical Rehabilitation (since 2003), Ergonomics Committee (since 1987), Polish Rehabilitation Society (founder since 1970), Polish Biomechanics Society (founder since 1985), International Society of Biomechanics (since 1983), Polish Society for Combating Disability, Expert in Rehabilitation of the World Health Organization.

Professor Aleksander Kabsch is the winner of many awards, among which the ones dear to his heart should be singled out (Figure 11):

- 2018 – Winner of the medal “For Merit to the Eugeniusz Piasecki Academy of Physical Education in Poznań”,
- 2021 – Winner of a special award in the third Plebiscite of the Polish Paralympic Committee “Guttmann 2021”.



Figure 11. Professor Aleksander Kabsch awarded the medal “For Merit to the Eugeniusz Piasecki Academy of Physical Education in Poznań” and a special award in the third Plebiscite of the Polish Paralympic Committee “Guttmann 2021”

Prof. Aleksander Kabsch is the initiator and organizer of sports for the disabled and many cyclical conferences of national and international scope devoted to rehabilitation issues, including oncological and geriatric rehabilitation. As the creator and visionary of the Rehabilitation and Social Integration Commission of the Polish Academy of Sciences, and the first Editor-in-Chief of the Journal of Rehabilitation Promotion of the Polish Academy of Sciences in Poznań, he enabled the popularization of the content of these meetings in the form of monographs. Later, as an active Senior Editor of Issues of Rehabilitation, Orthopaedics, Neurophysiology and Sport Promotion – IRONS, he caused this journal to obtain a scoring rank on list of the Ministry of Science and Higher Education (40 points), currently also visible in the PubMed database (Figure 12).



Figure 12. Formers and Editorial Board of the Issues of Rehabilitation, Orthopaedics, Neurophysiology and Sport Promotion – IRONS

Dear Professor Aleksander Kabsch,

For us, your students and colleagues, you are not only a model researcher and promoter of scientific staff, but also an inspirer of the idea of orthopedic biomechanics, rehabilitation and neurobiology, indicating paths for practical, clinical use of research in translational medicine.

Please do not stop, as long as you have the strength, because we deeply believe that you will never lack the intention and enthusiasm.