Celichowski J., Huber J. Kazimierz Grottel (1930-2017) – Memories. Issue Rehabil. Orthop. Neurophysiol. Sport Promot. 2017; 21: 55–65. DOI: 10.19271/IRONS-00048-2017-21

KAZIMIERZ GROTTEL (1930–2017) – MEMORIES

Jan Celichowski[1]
Juliusz Huber[2]
[1]Department of Neurobiology, University School of Physical Education, Poznań, Poland

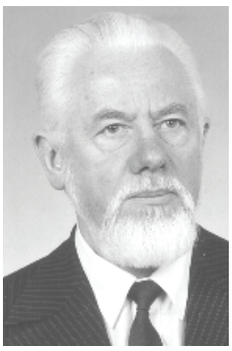
[2]Department of Pathophysiology of Locomotor Organs, University of Medical Sciences, Poznań, Poland

SUMMARY
The article presents memories of Kazimierz Grottel (1930–2017), an eminent scientist, physician and patriot, originator of neuroscience in Poznan.

Keywords: Kazimierz Grottel, memories, neuroanatomy, neurophysiology

Date received: 11th October 2017
Date accepted: 15th November 2017

KAZIMIERZ GROTTEL (1930–2017) – WSPOMNIENIA



Jan Celichowski[1]
Juliusz Huber[2]
[1]Zakład Neurobiologii, Akademia Wychowania Fizycznego im. Eugeniusza Piaseckiego, Poznań
[2]Zakład Patofizjologii Narządu Ruchu, Uniwersytet Medyczny im. Karola Marcinkowskiego, Poznań

STRESZCZENIE
W artykule przedstawiono wspomnienia o Kazimierzu Grottelu (1930–2017), wybitnym naukowcu, lekarzu oraz patriocie, twórcy poznańskiej szkoły neurobiologii.

Słowa kluczowe: Kazimierz Grottel, wspomnienia, neuroanatomia, neurofizjologia

Data otrzymania: 11 października 2017
Data zaakceptowania: 15 listopada 2017

Kazimierz Grottel was born on February 21st, 1930 in Pabianice, in the house of Józef and Marianna Grottel nee Szajbner. He came from a very large family. The Second World War, along with its subsequent consequences, greatly shaped his life. During the war the Grottel family was heavily involved in the conspiracy battle. They paid a high price, many of whom came through concentration camps, father and one of Kazimierz Grottel brothers did not return. Despite his young age, during the war he was a soldier of the Home Army (pol. Armia Krajowa), he earned his nickname "Dzidek" and "Patyk" in the conspiratorial activity.

In 1951 he started studying at the Medical Academy in Poznań, Faculty of Medicine. As a student of the 2nd year, he begun to work at the Department of Anatomy, until 1961 he was an assistant and also worked as a surgeon in several hospitals in Poznań. As a student he took part in an uprising Poznań June (*pol.* Poznański Czerwiec) 1956, and later was a member of the Temporary Student Environmental Revolutionary Committee in Poznań, which was a students' form of support for the anti-communist uprising of nationwide October 1956 (*pol.* Październik 1956). Within this activity, students among others threw documents from the Stalinist ZMP (*pol.* Związek Młodzieży Polskiej) in the corridors of the university making them accessible for all students. In 1958 he married Jolanta Rucka (MD), they have five children; Maciej, Katarzyna, Tomasz, Anna and Marcin, and numerous generations of grandchildren.

Kazimierz Grottel participated in conspiratorial meetings in the 1970s, during which he and his group of friends – intellectuals, worked out drafts of a new non-communistic Constitution, as well as the law on territorial self-government for the expected free Poland. In 1976, for the support of the

next anti-communist protest (the writing of a leaflet on a typewriter) he was convicted by a court sentence for two years in prison. When the communism collapsed, in the 90's, he was awarded the medal "Ad perpetuam rei memoriam" for his independence activity.

On June 10th, 1961 he received PhD in neuroanatomy. Since 1963 he was deeply involved in educational activity as lecturer and responsible for the administration of the Department of Anatomy, he directed Educational Teaching Programme for medical students. His habilitation was defended on the Faculty of Medicine of the Medical Academy in Poznań on December 13th, 1967; the habilitation title was supervised by Professor Józef Kołaczkowski, MD.

Next 28 years (1968–1981) he worked in a docent position at the Department of Anatomy. During this period, he published 37 original works in international and national scientific journals such as Journal für Hirnforschung, Folia Morphologica, Polish Endocrinology and Anatomischer Anzeiger, collaborating with prominent scientists such as Józef Kołaczkowski, Witold Michałkiewicz, Andrzej Obrębowski, Jan Krzysztof, Roman Zimny, Tadeusz Sobusiak, Mirosław Kozik, Teresa Hofman.

In 1981 he was invited by Rector of the Eugeniusz Piasecki Academy of Physical Education in Poznań, Professor Aleksander Kabsch, to begun research in neuroscience and organize a new department (preliminarily named the Department of Morphological and Functional Bases of Movement, later renamed the Department of Neurobiology; Figures 1 and 2), where he organized laboratories and courses concerning the structure and function of neural centers and neural pathways related to the motor control.

Despite numerous difficulties of the martial law period in Poland, he organized a modern scientific laboratories, focused on experimental neuroscience with an unprecedented in Poland approach, combining

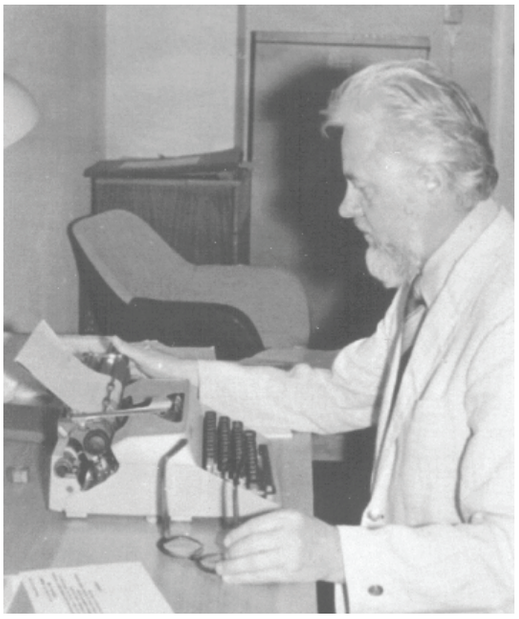


Figure 1. Kazimierz Grottel photograph taken in 1982

modern methods of neuroanatomy (histochemical staining of neurons based on retrograde axonal transport) as well as neurophysiology (intracellular recordings from single neurons and isolation of single motor units in skeletal muscles).

Professor Kazimierz Grottel and a group of his young collaborators received numerous research grants from the Foundation for Polish Science, the Scientific Research Committee and later the Ministry of Science and Higher Education, their results were documented in a series of papers in journals indexed by the Journal Citation Report (Figure 3).

In 1984–1987, Professor Grottel was elected as Vice-Rector for Science at the Academy of Physical Education. He promoted the quality of research and publications, which was not natural or understandable for staff at this communism time. Although he had played such a high school function, he continued to meet with many difficulties of political origin. His application for the title of professor was blocked by the Communistic Party section at the faculty for several years, what was a violation of the law even in the system of that period, and in the late 1980s this situation was

Figure 2. Rector of the Academy of Physical Education, Professor Aleksander Kabsch, celebrating 10th Anniversary of the Department of Neurobiology.

Figure 3. Kazimierz Grottel during a scientific seminar with co-workers. Photography taken in 1984.

the subject of an intervention by the Civil Law Spokesman Institution, a new institution in communistic country. The case of Kazimierz Grottel's fight for the respect of elementary principles of evaluation in the professor's line was also described in the national press. Ultimately, by the decision of the Central Commission for Scientific Titles and Degrees, Kazimierz Grottel was given the title of Professor of Medical Sciences on April 14th, 1991.

Numerous scientific and personal contacts of Professor Kazimierz Grottel with leading representatives of the world of science abroad and in Poland, have established the position of the Department of Neurobiology. A fruitful scientific collaboration with his friend, Professor Roman Zimny (who died in 1992), allowed to create the Department of Morphology, Biology and Health Sciences in Gorzów Wielkopolski, at the Faculty of Physical Culture of the Academy of Physical Education (Figure 4).

Thanks to scientific contacts of Professor Kazimierz Grottel with Professor Elżbieta Jankowska working at the Department of

Figure 4. Staff of the Department of Neurobiology (1991). Next to Kazimierz Grottel stands Roman Zimny.

Physiology, University of Goteborg, (who has also visited Poznań in 1985), Poznań neurobiological centre considerably enlarged its scientific experience through numerous research visits and training at this Swedish laboratory (Figure 5).

Since 1982, Professor Kazimierz Grottel has initiate and organized six nationwide symposia entitled "Organization of Muscle and Movement Control" (Figure 6), the last held in May 2000 (Figure 7), aimed at establishing scientific contacts and

Figure 5. Elżbieta Jankowska and Kazimierz Grottel and co-workers during experimental studies on spinal cord neural activity. Photographs taken in 1985.

Figure 6. Memorial photograph of the 3rd National Symposium "Organization of Muscle and Movement Control". The photograph was taken in 1984.

Figure 7. Photograph taken during the 6th National Symposium "Organization of Muscle and Movement Control"; celebrating on the occasion of the 70th anniversary and retirement of Kazimierz Grottel.

exchanging research experience with such renowned institutes of Polish Academy of Sciences as Nencki Institute of Experimental Biology (Professors Teresa Górska, Julita Czarkowska-Bauch, Urszula Sławińska, Remigiusz Tarnecki, Stefan Kasicki, Henryk Majczyński) and Institute of Biocybernetics (Professors Maria Piotrkiewicz and Wojciech Zmysłowski).

In 1990 professor Kazimierz Grottel, at the request of the Rector of the Medical Academy in Poznań, Professor hc. Antoni Pruszewicz MD, as well as the retired Head of the Department of Pathophysiology of Locomotor Organs, Professor Jadwiga Koczocik-Przedpelska MD, became the Head of this Department for 10 years (Figure 8).

The main idea of his activity was to combine the achievements of modern experimental neurophysiology with practical aspects of clinical neurophysiology (Figure 9).

The result of this activity was further development of diagnostic methods such as electromyography and the techniques of recording the evoked potentials by their automatic acquisition and computer analysis with the use of modern methodologies and apparatus (Figure 10). The realization of the vision of Professor Kazimierz Grottel enabled the implementation of

Figure 8. Kazimierz Grottel and co-workers of the Department of Pathophysiology of Locomotor Organs. Photograph was taken in 1997.

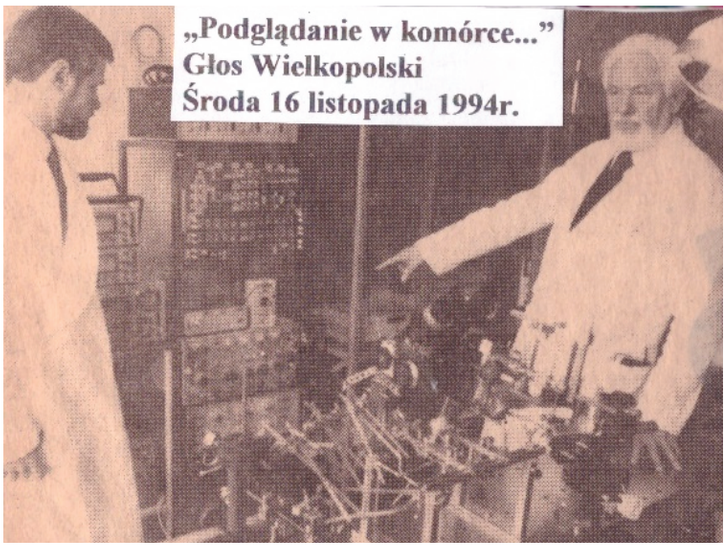


Figure 9. Photograph taken from an article published in Głos Wielkopolski describing the activity of experimental neurophysiology in the Department of Pathophysiology of Locomotor Organs.

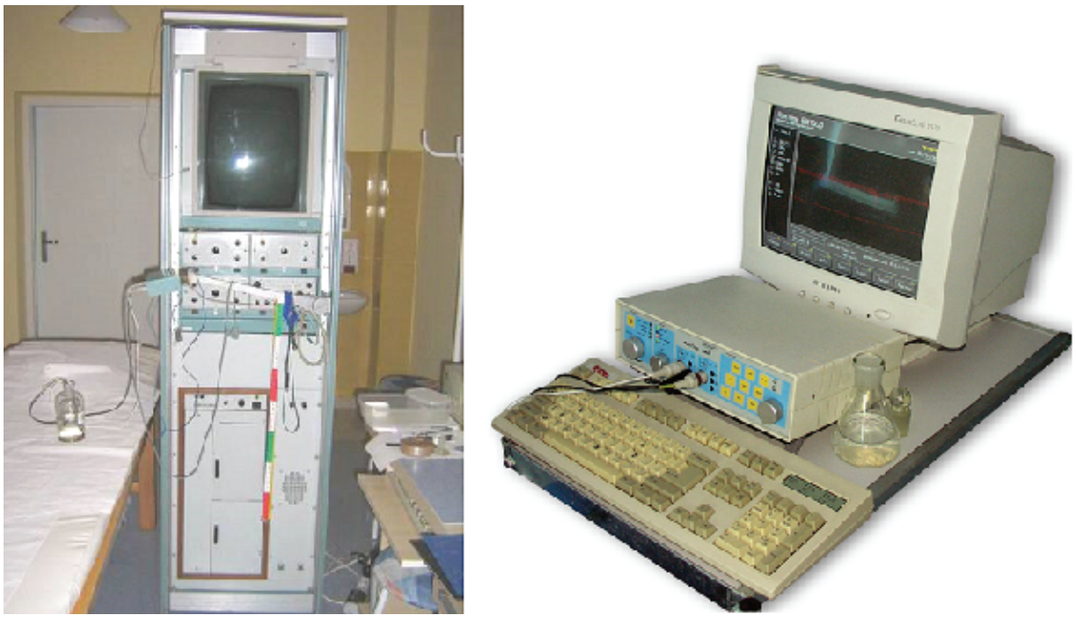


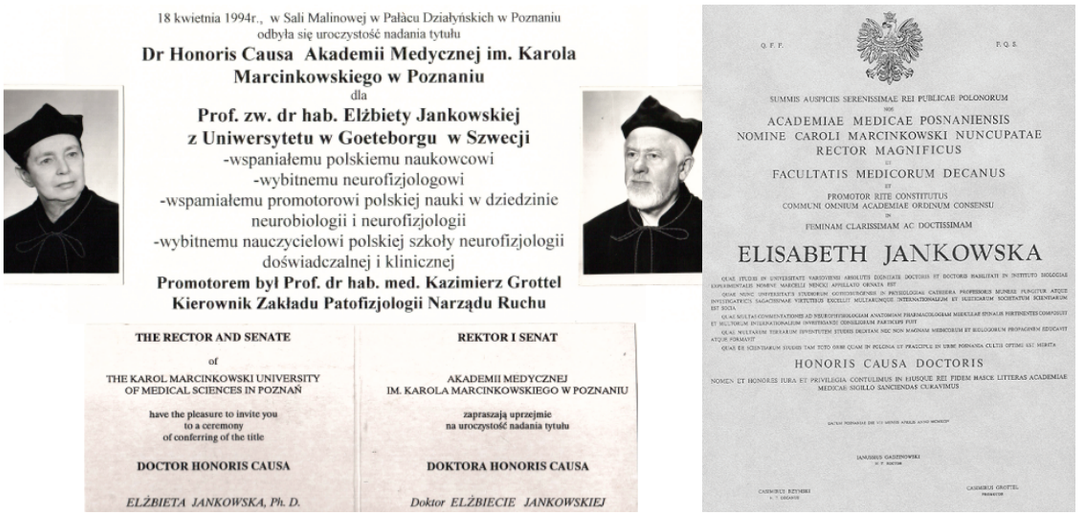
Figure 10. Diagnostic apparatus used for clinical neurophysiology studies at the Department of Pathophysiology of Locomotor Organs in 1990 and 1992 (allowing automatic acquisition and analysis of evoked potentials).

methods promoted by the leaders of Polish clinical neurophysiology (Professor Irena Haussmanowa-Petrusewicz MD, Professor Barbara Emeryk-Szajewska MD and Professor Józef Kopeć).

Professor Kazimierz Grottel was the promoter of the Doctor Honoris Causa title of the Karol Marcinkowski Medical University in Poznań for Professor Elżbieta Jankowska, as a sign of great respect and gratitude for her contribution to the development of neuroscience in Poznań (Figure 11).

On April 8th, 1994 in the Red Room of the Działyński Palace, the award was presented by the Rector of the Medical University in Poznań, Professor Janusz Gadzinowski, the laudation was delivered by Professor Kazimierz Grottel (Figure 12).

Professor Kazimierz Grottel's scientific achievements have been documented in


18 kwietnia 1994r., w Sali Malinowej w Pałacu Działyńskich w Poznaniu
odbyła się uroczystość nadania tytułu
Dr Honoris Causa Akademii Medycznej im. Karola Marcinkowskiego w Poznaniu
dla
Prof. zw. dr hab. Elżbiety Jankowskiej
z Uniwersytetu w Goeteborgu w Szwecji
-wspaniałemu polskiemu naukowcowi
-wybitnemu neurofizjologowi
-wspamiałemu promotorowi polskiej nauki w dziedzinie neurobiologii i neurofizjologii
-wybitnemu nauczycielowi polskiej szkoły neurofizjologii doświadczalnej i klinicznej
Promotorem był Prof. dr hab. med. Kazimierz Grottel
Kierownik Zakładu Patofizjologii Narządu Ruchu

THE RECTOR AND SENATE
of
THE KAROL MARCINKOWSKI UNIVERSITY OF MEDICAL SCIENCES IN POZNAŃ
have the pleasure to invite you to a ceremony of conferring of the title
DOCTOR HONORIS CAUSA
ELŻBIETA JANKOWSKA, Ph. D.

REKTOR I SENAT
AKADEMII MEDYCZNEJ IM. KAROLA MARCINKOWSKIEGO W POZNANIU
zapraszają uprzejmie na uroczystość nadania tytułu
DOKTORA HONORIS CAUSA
Doktor ELŻBIECIE JANKOWSKIEJ

Q. F. F. F. Q. S.
SUMMIS AUSPICIIS SERENISSIMAE REI PUBLICAE POLONORUM
NOMINE
ACADEMIAE MEDICAE POSNANIENSIS
NOMINE CAROLI MARCINKOWSKI NUNCUPATAE
RECTOR MAGNIFICUS
ET
FACULTATIS MEDICORUM DECANUS
ET
PROMOTOR RITE CONSTITUTUS
COMMUNI OMNIUM ACADEMIAE ORDINUM CONSENSU
IN
FEMINAM CLARISSIMAM AC DOCTISSIMAM
ELISABETH JANKOWSKA
HONORIS CAUSA DOCTORIS

Figure 11. Photographs of diploma from the ceremony of Doctor Honoris Causa title of the Karol Marcinkowski Medical University in Poznań for Professor Elżbieta Jankowska.

Figure 12. Nomination the Doctor Honoris Causa title of Karol Marcinkowski Medical University in Poznań to Professor Elżbieta Jankowska by The Rector Professor Janusz Gadzinowski and laudation of Professor Kazimierz Grottel.

more than 100 original papers on neuroanatomy and neurophysiology, biomechanics and biocybernetics published predominantly in international, peer-reviewed journals. His publications were cited over 500 times. He authored 20 review papers and content in five textbooks, including "Muscle's Organization and Motor Control" (Figure 13).

Professor Kazimierz Grottel was an author of more than 100 reports presented at international conferences. In the field of education of young academic staff he

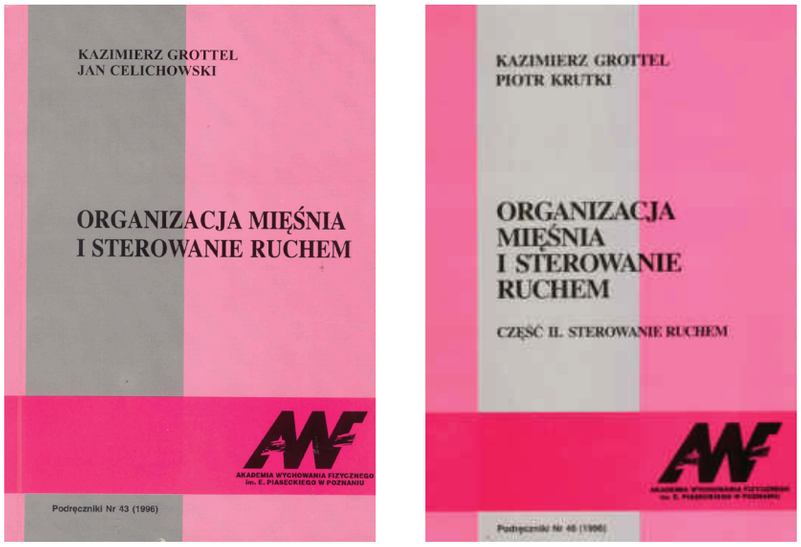


Figure 13. Covers of handbooks "Muscle's Organization and Motor Control" edited in 1992 and 1996 (Grottel and Celichowski 1992, Grottel and Krutki 1996).

supervised 11 doctoral students (Teresa Hofman, Jan Celichowski, Juliusz Huber, Krzysztof Kowalski, Dorota Jakielska-Bukowska, Alicja Nowak, Leszek Zguczyński, Eleonora Sikora, Włodzimierz Mrówczyński, Piotr Krutki, Barbara Mierzejewska-Krzyżowska) and habilitations of 3 post-doctoral researchers (Jan Celichowski, Juliusz Huber, Piotr Krutki) (Figure 14).

Professor Kazimierz Grottel was the active member of the Polish Neuroscience Association and the International Brain Research Organization, the Polish Anatomical Society, the Neurobiology Commission

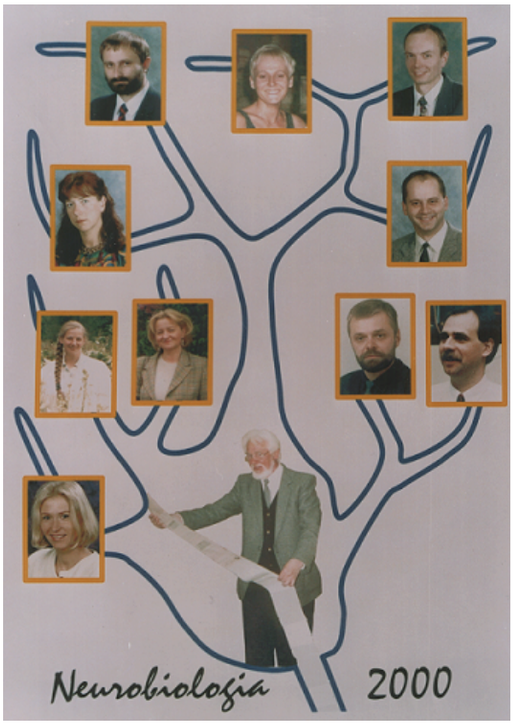


Figure 14. Memorial drawing given to Professor Kazimierz Grottel in 2000 by co-workers, illustrating the scientific staff promoted by him.

of the Polish Academy of Sciences. He was decorated with the Golden Cross of Merit, Knight's Cross of the Order of Polonia Restituta, Medal of the National Education Commission, Cross of Home Army, Badge of Veteran's Fight for Independence (*pol.* Złoty Krzyż Zasługi, Krzyż Kawalerski Orderu Odrodzenia Polski, Medal Komisji Edukacji Narodowej, Krzyż Armii Krajowej i Odznaka Weterana Walk o Niepodległość).

Cooperation and personal contacts with Professor Kazimierz Grottel will leave an indelible marks on memory, he preferred the way of interactions according to the rule "Trustworthy guardian…" by Tadeusz Kotarbiński. The way of transferring knowledge and experience, not only professional but also in life, was characterized by extraordinary kindness. In his scientific work he was an example of reliability and precision, a vision of modern documentation of results in neuroscience publications (linking neuroanatomical and neurophysiological methods) was his original idea (Figure 15).

As a mentor, he has always been keenly researching collaborators for new, broader horizons, engaging in "white area" projects in neurophysiological issues such as "nerve code analysis."

He was attached to tradition, including the common celebration of Christmas and Easter at meetings in both the Department of Neurobiology and the Department of Pathophysiology of Locomotor Organs (Figure 16).

Even after retiring in 2000, he remained in frequent contact with colleagues, followed the progress of research and publication, served advice and assistance. In 2004 he handed over a manuscript containing 170 pages entitled "Geneza i rozwój badań neurobiologicznych w Poznaniu" ("The Origin and Development of Neurobiological Researches in Poznań"), which content was

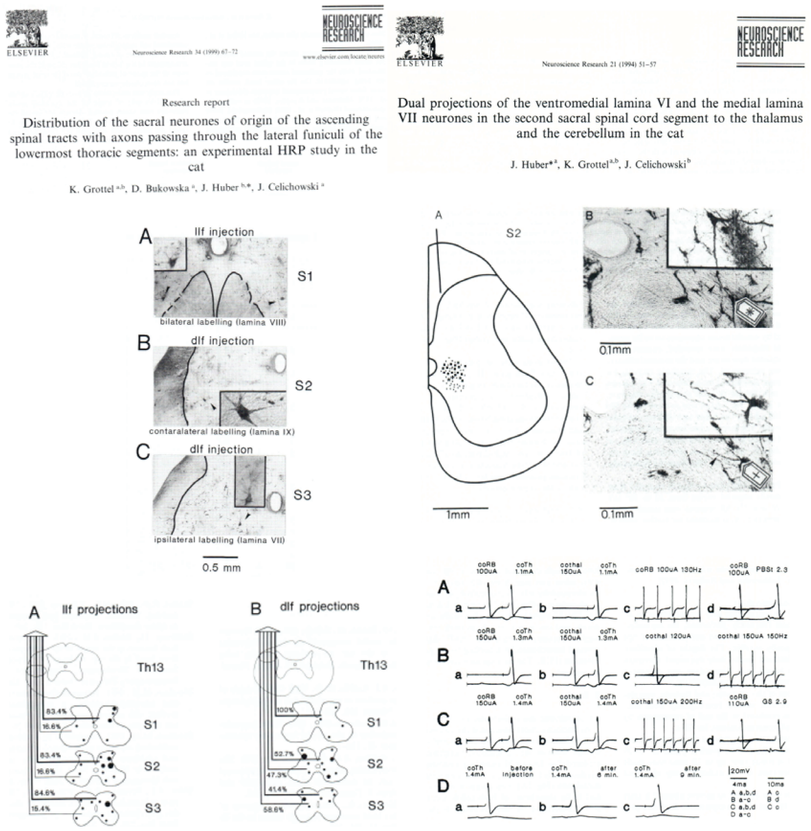


Figure 15. Examples of modern documentation of results in Kazimierz Grottel's publications in neuroscience (combination of neuroanatomical and neurophysiological methods) (Grotel et al. 1999, Huber et al. 1994).

Figure 16. Kazimierz Grottel with colleagues during the Christmas Eve in the Department of Pathophysiology of Locomotor Organs. Photograph was taken in 2008.

Figure 17. Kazimierz Grottel during the appeal of veterans of the Home Army in Żabików on June 8th, 2014. (Source: http://akwielkopolska.pl/index/index/szzak/1,3,0,692,70__rocznica_smierci_komendanta,page1,1.html).

used in this article (Grottel 2004). His hobby at the time was the study of the history of the Grottel's family and the activities of the veterans' associations (Figure 17).

Professor Kazimierz Grottel, a senior neuroscientist in Poznań, a physician, a scientist and a brilliant mentor, died in Poznań on June 14th, 2017.

REFERENCES

Grottel, K., Celichowski, J. (1992) *„Organizacja mięśnia i sterowanie ruchem. Cz. I. Budowa i czynność jednostek ruchowych."* Wydawnictwo AWF w Poznaniu.

Grottel, K., Krutki, P. (1996) *„Organizacja mięśnia i sterowanie ruchem. Cz. II. Sterowanie ruchem."* Wydawnictwo AWF w Poznaniu.

Grottel, K., Bukowska, D., Huber, J., Celichowski J. (1999) *"Distribution of the sacral neurones of origin of the ascending spinal tracts with axons passing through the lateral funiculi of the lowermost thoracic segments: an experimental HRP study in the cat."* Neurosci Res., 34(2), pp. 67–72.

Huber, J., Grottel, K., Celichowski J. (1994) *"Dual projections of the ventromedial lamina VI and the medial lamina VII neurones in the second sacral spinal cord segment to the thalamus and the cerebellum in the cat."* Neurosci Res., 21(1), pp. 51–57.

Grottel, K. (2004) *„Geneza i rozwój badań neurobiologicznych w Poznaniu."* Unpublished.

http://akwielkopolska.pl/index/index/szzak/1,3,0,692,70__rocznica_smierci_komendanta,Strona1,1.html

Authors reported no source of funding.
Authors declared no conflict of interest.

Autorzy nie deklarowali źródła finansowania.
Autorzy nie deklarowali konfliktu interesów.

Author responsible for correspondence:
Jan Celichowski PhD
Department of Neurobiology
Univeristy School of Physical Education
Królowej Jadwigi 27/39
61-871 Poznań, Poland
celichowski@awf.poznan.pl

Autor odpowiedzialny za korespondencję:
Jan Celichowski
Zakład Neurobiologii, Akademia Wychowania Fizycznego im. Eugeniusza Piaseckiego
ul. Królowej Jadwigi 27/39
61-871 Poznań
celichowski@awf.poznan.pl