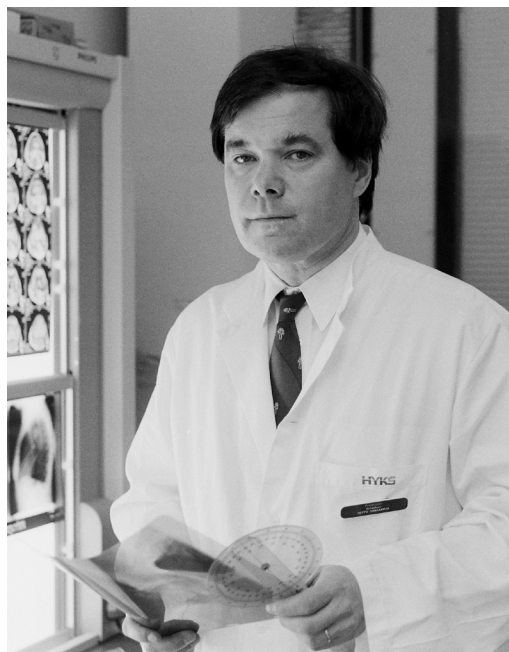


Seppo Santavirta

1945–2005

Seppo Sakari Santavirta, Professor of Orthopedics and Traumatology at the University of Helsinki, died after a sudden heart attack on June 22, 2005 at the age of 59. He was born into a physician's family but lost both of his parents when he was still at school. After military service, he followed in his father's footsteps and left for Switzerland to study medicine at the University of Zürich, from which he graduated in 1972. His first doctoral thesis, "Hyperplastische Schleimhautveränderungen im Dünn- und Dickdarm bei Morbus Menetrier" came from the same University in 1973. After returning to Finland, he started his specialization in surgery at the Helsinki University Central Hospital and at the same time he prepared his second Ph.D. thesis "Tourniquet ischaemia", which he defended successfully in 1979. He became a specialist in Orthopedics and Traumatology in 1980. During most of his active time, he worked for the Helsinki University Central Hospital, but he always valued his education and work at the Invalid Foundation ORTON (from 1986 through 1996). He was nominated Professor of Orthopedics and Traumatology at the University of Helsinki in 1996, after all four international experts had placed him in first place.

Together with Yrjö T. Konttinen, Professor of Medicine, Seppo founded an international and cross-scientific musculoskeletal diseases and inflammation research group (TULES). This group achieved National Center of Excellence status from the Academy of Finland, and National Ph.D. Graduate School status from the Ministry of Education. The focus of the multidisciplinary research has been biomaterials and their use in arthroplasty surgery, as spare parts for humans and in tissue-engineering applications. The most important research achievements have been diamond coating of joint prostheses and studies on biocompatibility of biomaterials. Based on this research, Seppo Santavirta prepared and successfully defended his third Ph.D. thesis, "Compatibility of the totally replaced hip.



Seppo Santavirta 1998. Photograph: Eero Roine.

Reduction of wear by amorphous diamond coating", and became a Doctor of Philosophy from the University of Kuopio in 2003 under the supervision of Reijo Lappalainen, Professor of Biomaterials Technology. Within the TULES group, Seppo hosted 50 researchers from 20 countries and many students of the group have advanced—becoming Professors, or working as postdoctoral fellows abroad.

Seppo Santavirta was a very flexible and creative scientist. As an athlete, he favored individual sports, but he was a good team worker, encouraging young people to make the most of their talents. He was also loyal to his senior co-workers, a man true to his word. His interest in sports led him to work with sports medicine and sports injuries, and later with traffic accidents and musculoskeletal diseases in general. Early on, he made substantial contributions to the understanding of occipito-atlanto-axial diseases. He described cervical spine involvement in trauma, in adult and juvenile rheumatoid arthritis, spondylarthropathies, psoriasis and Down's syndrome, including the surgical treatment and outcome. This work often took him to Japan, where he had especially many good friends. Later, he started to work with biomaterials and joint replacements. Together with Kaj Tallroth, he observed a particu-

larly aggressive form of aseptic loosening, which led to a beautiful series of publications on loosening of hip arthroplasties, covering pathobiological processes from foreign body reactions and immune responses to surgical treatment and long-term outcome. He recognized the role of foreign body reaction and delayed-type hypersensitivity early on, and sought co-operation with physicists working on plasma acceleration methods to produce high-quality diamond coating of artificial joint components with no wear and no corrosion. A strong link via a trusted friend, Doc. Mika Hukkanen, to the laboratory of Professor Julia M. Polak in London, led to several excellent publications on neuropeptides and innervation of the skeleton.

Seppo Santavirta liked research and clinical work equally and never forgot that patients are human beings, with feelings and lives of their own when away from the hospital bed, and he performed a great deal of coping and quality of life research together with his wife Docent Nina Santavirta and the mathematician Dr. Svetlana A. Solovieva, originally from Russia. Most of his research was characterized by strong international links and networking, and he was invited to the editorial boards of many international journals in his field. He devoted his most important work for scientific journals to *Acta Orthopaedica*, being a co-editor since 1989 until his death. During this time, he edited hundreds of manuscripts and raised enthusiasm among many international researchers to write articles and reviews for Acta.

The untimely death of Seppo Santavirta ended a long orthopedics research career which showed no signs of waning; during his last year, Seppo published 15 scientific articles. Some of the last ones are published in this issue of *Acta Orthopaedica*: one Editorial on biotribology (page 613) and one review article on the medical treatment of rheumatoid arthritis, together with Yrjö T. Konttinen and coworkers (page 614).

Seppo was a talented all-rounder, which was reflected in his spare-time hobbies. He was an eager sportsman. After his active sports career in speed skating, he was the chairman of the Finnish Skating Association 1978–1979, and from 2001 he was chairman of the Track Racing Division of the Finnish Bicycling Union. He was a connoisseur of the Arts, and attained considerable expertise in the Finnish Arts in particular. He had a charismatic personality, and would do things in his own way—preferring to take the better course rather than the regular and mediocre one. He relaxed and enjoyed life best with his family at their summer cottage on Högsåra Island in the Finnish Archipelago. His early death is a huge loss to the Finnish and international orthopedics community, to his friends and co-workers, and in particular to his wife Nina and sons Torsten and Robin.

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