

In Recognition of an Implant Pioneer: Professor Dr André Schroeder

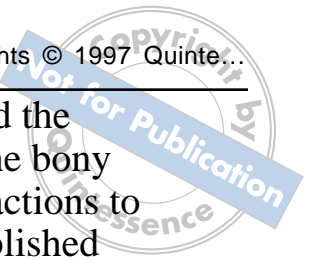
William R. Laney, DMD, MS, Editorial Chairman

An international pioneer of endosseous dental implant investigation and an esteemed dental educator from Berne, Switzerland, Professor André Schroeder was recently recognized by the Academy of Osseointegration with Honorary Fellowship in the Academy. In bestowing its highest honor on Professor Schroeder, the Academy paid tribute to one of the unsung giants in the field. His long and productive career in research and clinical science is only now receiving the worldwide acclaim it so richly deserves.

Born in Basel, Switzerland in 1918, Professor Schroeder was educated in the public schools of Basel and completed undergraduate studies at the University of Basel School of Dentistry. In 1944, he received a federal diploma attesting to his licensure as a dentist. One year later, a thesis for the Dr Med Dent degree was completed and postgraduate dental studies were undertaken in Basel, and later in Innsbruck, Graz, and Wien in Austria. Following completion of these postgraduate dental studies in 1949, clinical studies in medicine received his attention and shortly thereafter in 1951, Professor Schroeder became director of the Volkszahnklinik in Basel. This experience continued until 1959, when he received an appointment as professor and chairman, Department of Operative Dentistry, Endodontics, Oral Histology and Pathology, University of Berne, a position he held for 25 years.

Dr Daniel Buser, a student, colleague, and friend of Professor Schroeder who currently is a member of the University of Berne Department of Oral Surgery, writes that during Professor Schroeder's tenure as chairman of the Department of Operative Dentistry and Endodontics, with collegial support he conducted intensive clinical and laboratory research that has been documented by more than 150 publications. Pursuant to the histologic investigation of root canal filling and pulp capping materials in monkeys, in the early 1970s he developed, in collaboration with Dr H. Stich, a new histologic technique using methyl methacrylate resin embedded and nondecalcified sections.

Professor Schroeder's entrée to the dental implant arena began with his introduction to the Institute Straumann in Waldenburg, a company with considerable experience in metallurgy and metal products used in orthopedic surgery. Through his initiative and the support and consultation of Dr Straumann, basic research in oral implantology was begun with the goal of developing a dental implant system for clinical use. The alloplast-human tissue interface was investigated utilizing the Schroeder histologic technique incorporating nondecalcified sections with metallic implants in situ. These experiments may well have been the first to demonstrate

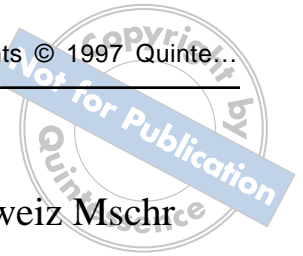


histologically the endosseous titanium dental implant-bone interface and the phenomenon now known as osseointegration. While acutely aware of the bony response to alloplastic materials, he also was interested in soft tissue reactions to titanium implants. The results of his implant experimentations were published locally in the Swiss Dental Journal (German language) in 1976, 1978, and 1981.¹⁻³ Unfortunately, these papers were not widely circulated even though they clearly demonstrated the "immediate growing in of the bone into the rough implant surface (titanium plasma)," and "no evidence of the formation of a soft tissue bed" at the interface. Implanting titanium hollow cylinders with a titanium spray surface in monkeys and subjecting them to masticatory forces, Professor Schroeder and colleagues were able to demonstrate histologically an ankylotic contact between implant and bone as well as the presence of osteocementum encasing an implant at its deepest part. In more recent textbook publications,⁴⁻⁶ his collected experiments and developments have become more widely acknowledged and disseminated.

In 1980, Professor Schroeder founded and served as president of the International Team for Oral Implantology (ITI). The team continues today as a dedicated group of clinical and laboratory researchers strongly committed to research and education. Evolving from the efforts of this group have been several generations of implant design and ultimately in 1986 what is currently known as the ITI Dental Implant System. Through the pioneering efforts of Professor Schroeder, the research and education activities of the ITI group (now know as the ITI Foundation) have continued to develop apart from the Straumann Company. Professor Schroeder has unselfishly given of his time, expertise, research skills, and personal resources to ensure the success of these undertakings. Dr Buser has commented that, "the success story of the ITI System is also the success story of Professor Schroeder because the system reflects a lot of his basic ideas, such as biology, reliability, simplicity, and broad applicability."

Only in recent years has this writer had the opportunity to personally become well acquainted with André Schroeder in professional as well as social settings. He is indeed a warm, humble, and unpretentious gentleman, completely devoted to his family and professional endeavors. While not outwardly gregarious, the Professor has been a continual student—inquisitive, intelligent, observing, and possessing amazing insight and intuition. These personal traits certainly have enabled him to serve with distinction as the dean of the Medical Faculty, University of Berne (1971-1973) and as the president of the University of Berne (1979-1980).

Congratulations, Professor André Schroeder, on a dedicated, productive professional career that has provided note worthy contributions to dentistry. Your many accomplishments will have a lasting impact on the future of oral implantology.



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3. Schroeder A, Van der Zypen E, Stich H, Sutter E. The reaction of bone, connective tissue and epithelium to endosteal implants with sprayed titanium surfaces. J Maxillofac Surg 1981;9:15-25.
4. Monograph (Die Autopolymerisate) together with L Castagnola.
5. Textbook (Endodontics) 1977/1981 (English edition 1981).
6. Textbook (Oral Implantology) 1988 (English edition 1991). Schroeder A, Sutter E, Krekeler G (eds). Oral Implantology: The ITI Hollow-Cylinder System. Stuttgart: Thieme, 1991.