

Professor Emil Steinberger
(1928 – 2008)



Professor Emil Steinberger

The American Society of Andrology and international community of biologists and endocrinologists of reproduction lost a distinguished, meritorious member, Professor Emil Steinberger. Professor Steinberger died in Houston on October 12, 2008. He was recognized as an acknowledged representative of American and international scientists who left a discernible impression on progress in modern experimental and clinical andrology, and reproductive endocrinology. In the United States he was the founder and first president of the American Society of Andrology as well as the founder and president of Texas Institute for Reproductive Medicine and Endocrinology in Houston, TX. In Poland he has been recognized as a teacher, protector

and friend of a number of Polish andrologists and researchers in the field of reproductive biology. In 1997, in appreciation of professor Steinberger's merits, the Polish Andrology Society conferred on him the distinction of Honorary Member.

Emil Steinberger and his wife, Anna, visited Poland a number of times. They made significant contributions to conferences and congresses on testicular cell biology and clinical endocrinology held in this and many other countries. It is worthy to mention his lecture in the seventies held in Poznan on the hormonal control of spermatogenesis, considering target cells for gonadotropins and androgens in the testis, and the regulatory mechanisms in the seminiferous epithelium. In 1997 they both made a major contribution to andrological conference in Kraków, organized as a satellite symposium to the International Congress of Andrology held in Salzburg (Austria). In 2000 the Steinbergers participated actively in the symposium *Andrology Today* held in Bydgoszcz. Professor Emil Steinberger was the invited guest lecturer to present the introductory lecture *Andrology, the Past, the Present and the Future*. It was a real pleasure to hear about the history, achievements and developmental perspectives of both clinical and basic aspects expressed by such an experienced and generally acknowledged lecturer. Following this conference he presented also a lecture on clinical aspects of hyperandrogenism in women to the members of Department of Obstetrics and Gynecology, University of Medical Sciences in Poznań.

From the original pioneer experimental achievements of Emil Steinberger the results of his *in vivo* study, defining the stages of spermatogenesis which require testosterone and/or FSH, should be mentioned. He obtained interesting results on the effects of heat, cytostatics and other toxic agents on spermatogenesis and *in vitro* sperm penetration through cervical mucus and human sperm cryopreservation and other. He also summarized knowledge on hormonal control of spermatogenesis in a number of review articles. In early seventies, when the role of androgen binding proteins (ABP) and testosterone receptor in seminiferous epithelium were under general discussion, he proposed an interpretation that ABP transfers testosterone to spermatogenic cells at definite step(s) of spermatogenesis where the nuclear acceptor proteins help the steroid interact with the DNA. In cooperation with Professor

Anna Steinberger he continued research on the control of spermatogenesis, especially on the role of Sertoli cells in the local mechanisms, using an *in vitro* culture model of isolated Sertoli cells. Emil also focused his interest on the pathophysiology and clinical aspects of human reproductive disorders, sexual dysfunctions, infertility and its managements.

Emil Steinberger was born in Berlin on December 20, 1928. He attended primary school in Poland, then high school in Alma-Ata (Kazachstan) during World War II, graduating in 1945. In 1946 he began medical studies in Alma Ata and continued for a short time in Wrocław (Poland), but the same year, has moved to Germany and continued studying medicine at the J. W. Goethe University in Frankfurt A/M. In 1948 he immigrated to the United States and during 1950-1955 pursued graduate studies in anatomy and endocrinology at State University of Iowa, Iowa City while continuing studying medicine, and graduating in 1955 with both the M.S. and M.D. degrees. During this time Emil also managed to marry Anna and start a family. His subsequent scientific carrier developed within experimental and clinical fields of endocrinology and reproduction. After completing postgraduate training and residency program in internal medicine and endocrinology at Wayne State University Medical School Hospital, Detroit, MI, he assumed a faculty position, then Chairman of the Department at Albert Einstein Medical Center (1961-1971) and Temple University Medical School (1967-1971) in Philadelphia. During 1958-1961 he was a commissioned officer at the Naval Medical Research Institute in Bethesda. In 1971 he was recruited by the new University of Texas Medical School in Houston, TX as professor and chairman to establish a Department of Reproductive Medicine and Biology. He was also active in the Division of Endocrinology, Dept of Internal Medicine and the Department of Obstetrics and Gynecology. In 1983 he created the Texas Institute for Reproductive Medicine and Endocrinology (TIRME) and Texas Hormone Assay Laboratory (as a division of TIRME). He served as the president until his decision to retire in 2002.

Engagement of Emil Steinberger in the field of organization of science and education appeared as membership of a number of American and international scientific societies, committees, commissions and institutions. Beside the American Society of Andrology, he was a member of Endocrine Society,

AACE, SSR, Fertility Society, Sigma Xi, New York Academy of Sciences, World Population Council, NIH Study Sections, and many other. Frequently, he acted as chairman of committees and councils in university, hospitals and NIH. He had been acting as a member of advisory boards of endocrine and reproductive biology study section of NIH and WHO, and many times as a chairman, or a member, of scientific or organizing committees of symposia and international congresses for andrology, reproductive biology, and human reproduction were also his editorial activities. He was the associate editor of renowned *Biology of Reproduction* and of *Andrologia* and a member of the editorial board of *Journal of Clinical Endocrinology and Metabolism* and *Journal of Andrology*. He was a co-editor of a number of books, such as *Textbook Endocrinology*, vols. 1-3, Grune & Stratton, New York, 1979, *Testicular Development, Structure and Function*, Raven, New York, 1980, as well as books related to Serono Symposia as the *Recent Progress in Andrologia*, Academic Press, London, vol. 14, 1978 and *Reproductive Medicine*, Raven New York, vol. 29, 1986 and vol. 93, 1993. Finally, his lectures to infertility awareness groups at hospitals, various church groups, high schools, and also interviews for magazines, are an expression of scientific, professional and social service to the community and worthy of mentioning.

Emil Steinberger had been honored with numerous distinctions and awards in the USA and many other countries. He was a recipient of undergraduate (1955) and postgraduate (Albert Einstein Medical Center, 1967) awards and of National Science Foundation Postdoctoral Fellowship (1958). In 1983 he received the Ashbell Smith Distinguished Professorship of the University of Texas Health Science Center at Houston, and in 1987 the Distinguished Andrologist Award from the American Society of Andrology. He became Fellow of American College of Endocrinology (1995) and in 1999 was honored with Distinguished Clinician Award of the College. He was a recipient of medals, diplomas and certificates of appreciation in many countries, including Spain (1986), China (1987), Poland (1997) and Chile (2001). National societies of andrology distinguished him with honorary memberships. Besides being named Honorary Member of the Polish Society of Andrology (1997), Emil, has the Honorary Membership of the German Society of Andrology (1985) and Pacific Coast Fertility Society (1976).

What should not be left out of the account, are the special items of Emil Steinberger's publishing output with a message of great significance for future generations. They are two books with contents comprising the author's life in the middle of twentieth century, his personal experiences and own painful impressions before, during and after the World War II, his efforts to escape the Holocaust, to survive against many odds and to develop a successful professional carrier and individual personality. They can be viewed on his personal website <http://esteinberger1.home.comcast.net/~esteinberger1>

Emil Steinberger will remain in our minds as a unique person expressing strong character and individuality, friendly and ready to help everybody who desired to be engaged in research or clinical activity corresponding to his special field of interest and, we believe that through his associates and successors of his ideas, his soul will now emanate to next generations of researchers and clinicians in the world. Dr. Lamb summarizes emphatically the Emil Steinberger's life in obituary notice written on behalf of American Society of Andrology that *there is much to be learned from his story of perseverance to overcome great obstacles in life to become a leader in our field.*

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