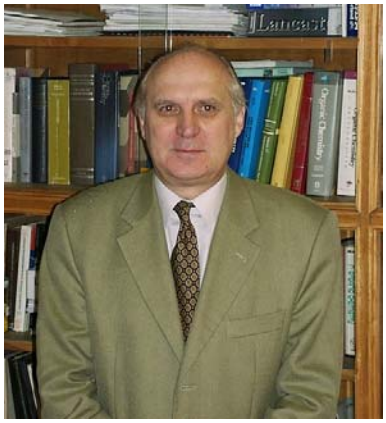
Profesor Sándor Antus

A Tribute



Sándor Antus was born in Szeged (Hungary) on February 28, 1944. He studied chemistry at the Technical University of Budapest (TU), Hungary (1963-1968). With a scholarship from Chinoin-Pharmaceutical Work, (Budapest) he earned his PhD under the supervision of Professors L. Farkas and M. Nógrádi in the Department of Organic Chemistry of TU Budapest. He defended his PhD thesis entitled "Total synthesis of naturally occurring isoflavanones: dalbergioidin, ougenin and ferreirin" in 1971. Between 1972-1977, he was employed as a research fellow at the Central Chemical Research Institute of the Hungarian Academy of Sciences (Budapest) and his research was focused on thallium chemistry and its application to the synthesis of natural products. In 1977 he was awarded his C.Sc. degree from the Hung. Acad. Sci. In 1978, he moved, as a senior research fellow, to the Research Group for Alkaloid Chemistry of the Hung. Acad. Sci. located in the Department of Organic Chemistry of TU (Head of Dept. Prof. Dr. Cs. Szántay). During this time he advanced gradually to the position of Assistant (1982) and Associate Professor (1987). In 1992, he continued his research in the synthesis of O-heterocycles of potential biological activity, their chiroptical properties and enantiomeric separation at the Department of Organic Chemistry of the University of Debrecen (Hungary) where he was promoted to Full Professor (1993) on the basis of his D.Sc. degree from the Hung. Acad. Sci. Since 2002 he has also held the position of Vice-Dean at the Faculty of Sciences of the University of Debrecen.

His main research interests involve the synthesis, stereochemistry, chiroptical study and enantiomeric separation of naturally occurring O-heterocycles, mostly flavonoids, isoflavonoids, flavano- and neolignanes, cannabinoids and related compounds, as well as synthetic aspects of original drug research. His work on O-heterocycles yielded numerous outstanding results.

He made significant contributions to organothallium chemistry with respect both to the synthesis of natural iso- and policyclic flavonoids and their N-hetero analogues, as well as dearomatization of phenols induced by thallium(III) nitrate. It is remarkable that he studied and

reported the base-sensitivity of acetals and ketals containing acidic α-hydrogen. He developed a widely applied method for the synthesis of isoflavanones and antihepatotoxic and antioxidant flavano- and neolignans. With the application of hypervalent iodo compounds in phenol chemistry, he contributed not only to the chemistry of oxenium ions but also introduced novel synthetic routes for the preparation of naturally occurring O-heterocycles. He performed the first synthesis of grisan, the basic skeleton of the griseofulvin antibiotics distributed as medicine. He worked out simple chromatographic and enzymatically catalyzed methods for the resolution of O-heterocycles. His chiroptical studies revealed the behavior of the benzene chromophore in O-heterocycles and allowed the introduction of helicity rules for their configurational assignment. The total number of his publications is 208 including 105 published in SCI journals, 9 in non-SCI journals and 20 as book chapters. He is editor of the book "Flavonoids and Bioflavonoids 1995" (Publishing House of the Hung. Acad. Sci., 1996, ISBN 9630573008). He is also co-author of ten Hungarian patents, some of which were also patented in overseas and European countries. The Hungarian patent 162.337 (1970) was the basis of the first orally administered antiostheoporosis drug developed in collaboration with Chinoin-Takeda and marketed under the name of Osteochin®, in Hungary, Osten® in Japan, and Osteofix® in Italy. There are 731 independent citations to his scientific work.

His scientific interest and work have been highly influenced by successful international collaborations. He spent one and a half year as a "Humboldt-Fellow" at the University of Bochum (Germany) under the guidance of Prof. Dr.Dr. h.c. G. Snatzke studying chiroptical spectroscopy (1977/1982). He worked as a postdoctoral fellow at the University of München with Prof. Dr.Dr. h.c. H. Wagner in 1980. This was the beginning of a long-term and very fruitful co-operation lasting up to the present day in the field of isolation, structural elucidation and synthesis of naturally occurring O-heterocycles possessing antihepatotoxic activity. He was postdoctoral fellow at the University of Vienna in the research group of Prof. Dr. E. Zbiral (1987) working in the field of thallium chemistry and at the University of Zürich under the supervision of Prof. Dr. A. Dreiding studying the synthesis of terpenoids (1988).

Professor Antus has been invited by numerous universities, companies, research institutions and scientific societies to give lectures on his research work. He has given 34 lectures at international conferences and symposia and over 110 lectures at various universities, academic and industrial research laboratories. He has participated in wide-ranging collaboration with a number of pharmaceutical companies and organizations, e.g. with Chinoin, Egis and Gedeon Richter Pharmaceutical Work in Hungary and with Th. Goldschmidt AG., Nycomed Arzneimittel GmbH., Silesia Gerhard Hanke KG., and Clariant GmbH. in Germany. His scientific co-operation with numerous Hungarian and foreign scientists also illustrates his tremendous activity. He has a long list of memberships in various scientific Hungarian committees in which he has performed substantial work. He has been a Member (since 1977), Secretary (1986-1993) and Chairman (since 1993) of the Committee of Flavonoid Chemistry of the Hung. Acad. Sci.; a Member of the Committee of Theoretical Organic Chemistry of the Hung. Acad. Sci. (since 1987), a Member of the Council of Science and Engineering of the

Hungarian Scientific Research Fund (OTKA) (1993-1996), Chairman of the Reviewing Panel of Chemistry Division II. of OTKA (1996-1999), a Member of the Reviewing Panel of Financial Support to publication activities and mobilities of OTKA (1999-2002), Chairman of the Reviewing Panel of Postdoctoral Fellowships of OTKA (since 2003), Chairman of the Reviewing Panel of Chemistry Division of Széchenyi's and Békesy's scholarship of the Ministry of Culture and Education (since 2002) a Member of the Hungarian Office for Research and Development (since 2001), a Member of the Committee of Organic and Biomolecular Chemistry of the Hung. Acad. Sci. (since 1993), a Member of the Presidium of the Organic Division of the Hungarian Chemical Society (since 1987), a Consultant Member of the Chemical Division of the Hung. Acad. Sci. (since 1994).

Professor Sándor Antus has received a number of awards for his academic activity: Géza Zemplén Prize (Hungarian Academy of Sciences, 1984), Nivo-Prize (Hungarian Chemical Society, 1995), Széchenyi Professor Scholarship (Ministry of Hungarian Culture and Education 1997-2001). Novicardin-Prize (Hungarian Academy of Sciences, 1998), Arnold Ipolyi-Award (Hungarian Scientific Research, Fund, 1999), Széchenyi-Prize (President of the Hungarian Republic, 2000).

His biographical references reflect the fact that he is well known in chemical society with the most important data included in the Hungarian and International Who's Who (Biográf Kiadó, Budapest) in the First Edition, p. 27 (1996), in the Second Edition, p. 29 (1998) and in the Third Edition, p. 45 (2002). He is also listed in the Hübners blaues Who is Who (Personenenzyklopädien AG. Zug/Switzerland) p. 48 (2003).

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Selected publications of Professor Antus where the main areas of his research are summarized.

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