Remembering Gregory D. Botsaris, Professor Emeritus of Chemical and Biological Engineering

Gregory D. Botsaris, Professor Emeritus of Chemical and Biological Engineering passed away on September 25, 2014 surrounded by his family and close friends.

Professor Botsaris completed his undergraduate studies at the National University of Athens, Greece and received three graduate degrees from M.I.T., including a Ph.D. in chemical engineering. After completing his doctorate in 1965, he joined the Department of Chemical Engineering at Tufts University School of Engineering as an assistant professor. He was promoted to the title of Associate Professor in 1969 and to Professor in 1975. While on leave from Tufts in 1977, he served as the founding faculty member of the Department of Chemical Engineering at the University of Patras in Greece. From 1983 to 1993, he served as the department chair. Upon his retirement in 2004, he was named Professor Emeritus of Chemical and Biological Engineering.

Throughout his career at Tufts, Professor Botsaris worked tirelessly to enhance the Department of Chemical and Biological Engineering. During his chairmanships, the department moved to its current home in the Science and Technology Center, and its number of faculty and graduate students increased appreciably. He also created the Biotechnology Engineering Center, ushering in bioengineering activities at the School of Engineering.

For more than 40 years, Professor Botsaris consulted with many different companies including: Gillette, Textron, Polaroid, Fibergen, and CIBA-Corning. His research centered around two fields: crystallization and stability of colloidal dispersions.

His research in dispersions involved the stabilization of coal-water slurries and their use as alternative fuels in the power industry. In 1981, he was a member of a U.S. Department of Energy delegation that visited China at the invitation of the Chinese government for exchanging technical information on coal utilization in the form of slurries in water. In 1989, Professor Botsaris co-edited a book, Interfacial Phenomena in Coal Technology, which focused on clean-coal technologies.

The heart of his crystallization research involved the investigation of secondary nucleation and the effect of additives on crystal growth. His first doctoral student used chiral crystals in 1970 as a probe of the mechanism of secondary nucleation. This work was revisited and refined in the late 1990s and early 2000s and led to a novel model for secondary nucleation. This model has important implications for the separation of chiral drugs by crystallization in the pharmaceutical industry. In the 1990s, Professor Botsaris also studied environmental applications of crystallization—namely, the freeze concentration of the bleaching effluents of paper pulp plants and the production of a road deicer, calcium magnesium acetate, by a process involving crystallization. In 1997, he co-edited the book Separation and Purification by Crystallization.

He held membership in the American Institute for Chemical Engineers (AIChE) and served as chairman of the AIChE Crystallization Committee and sat on the Steering Committee of the Association for Crystallization Technology (ACT).

The Gregory Botsaris Lectureship was established in 2006 in recognition of Professor Botsaris’ outstanding leadership and invaluable contributions to the Department of Chemical and Biological Engineering. Colleagues, friends, alumni, and current faculty members have contributed to the lectureship fund, which
provides a biannual chemical engineering lectureship series for speakers including Professors Michael Doherty, Y.-A. Liu, Thomas Peterson, and Alan Hatton.

Greg is survived by his wife, Betty, his sister in Patras, his son Serge, and three grandchildren.

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Your Memories of Professor Botsaris

Mark Devito, Professor of Music Emeritus
I served on the committee on Faculty Research Awards with Gregory Botsaris for more than two years. He was a generous, cheerful, and always hard-working colleague, a good friend and a man of good words. We were in entirely different departments, but we always understood each other perfectly. He will be missed by all of us.

Sol Gittleman, Alice and Nathan Gantcher University Professor of Judaic Studies
Greg was a colleague, friend, and whenever I needed him during my time as Provost, a most reliable ally who kept his cool under often difficult circumstances. He was a quiet leader, a man of taste, good nature who always had a smile for you. He was steadfast, loyal and a true friend. I will miss him.

Vasilis Papavassiliou, EG91
My deepest sympathies to Professor Botsaris' family. He was department chair when I arrived at Tufts and he was always smiling and easy to approach.

Professor Kyriakos Papadopoulos
Tulane University, Department of Chemical and Biomolecular Engineering
I met Gregory in AIChE meetings of the early 80s. He kindly asked me in 1990 to be a lecturer in the Colloid Science course he organized and taught for many years. I did so for 10 years, got to know him well, and we became friends. He was one of the kindest persons I have known. A fond memory is having dinners with Gregory and Betty, and strolling in the streets of Amsterdam.

Dion Vlachos
I met Gregory Botsaris at the AIChE and during visit at Tufts. We had a vivid discussion on crystallization in his office.

Richard D. Siegel, E64, EG66, Ph.D. 1969 Lehigh University
Greg was a dear friend. I was his first Teaching Assistant at Tufts and we stayed in touch through the years. I suspect Greg was one of the reasons we started going to Greece for our summer holidays. We fell in love with the people and the country and have been going almost every year for over a decade.
Vinod Barot, EG72
I enjoyed a class on crystallization under his stewardship. He was a pleasant and friendly teacher. Rest in peace, Professor Botsaris.

Haralamus (Harry) Pantisidis, E72
I was a student at Tufts University in Chemical Engineering and took a course in Polymer Process Engineering by Dr. Botsaris in 1971. Dr. Botsaris was such a congenial person, always with a smile in his face. Very open to students cultivating a friendly relationship with them.

Jane Wahome, E03
Dr. Botsaris was one of my academic advisors while in the ChBE department and teachers. In the first month of the ChE Thermodynamics course, most of the class was terrified and bewildered by all the new concepts, but every lesson, Prof Botsaris would smile at us as though we were little children [although I’m sure we were to him!] and say “Just have faith, believe these equations are true and in a few weeks, you will understand.” This gentle and kind approach to teaching comforted me immensely and I grew to love Thermo.

Tasoula Kyprianidou-Leontidou, EG87, EG90
Gregory Botsaris was my advisor for both Masters and Ph.D. He was a sensitive, very clever and supportive person. I will never forget the support I received from him during the last months of my Ph.D. thesis, being pregnant initially and with a small child later.

Eugenia Metaxas, E93, EG95
Professor Botsaris was very influential in my decision to major in chemical engineering with the thought that I could eventually pursue medical school, which I never did as my interest in chemical engineering grew through the program.

George Asimellis, G93, G97
I knew Professor Gregory Botsaris personally, and as a grad student at the Electro-Optics Technology Center, also housed at Colby Street. He was a very warm person, kind in heart, keen in science.

Vasken Dilsizian, E77, EG79
Professor Botsaris was truly an inspirational figure, a brilliant scientist, and a gifted teacher with outstanding human values. He was my mentor and advisor at Tufts, and instrumental for my pursuit of chemical engineering for my undergraduate and graduate degrees in the mid1970s. Professor Botsaris was kind, humble and generous with his time and I will forever be grateful for his guidance and wisdom.
Professor Botsaris was a truly good person and guided me immensely in my career goals of being a successful Tufts student. A friendly, truly academic person and expert in the field of crystallization, he gave me all the consideration towards counseling me in the field of Engineering at my time of need. Thanks to his blessings, I am now a successful professional as a "technical interpreter" to the Indian chemical and other industries. Such a selfless person is rare to find and an asset to society.