



IN MEMORIAM

Stanley Gerald Prussin
Professor of Nuclear Engineering
UC Berkeley
1939-2015

Professor Stanley Prussin died at his home in Kensington, California, on Thursday, August 20, 2015, after a lengthy illness.

Stan, as he was known by everyone, was born on November 20, 1939, in Bridgeport, Connecticut. He received his B.S. degree from MIT in 1960, a year ahead of his contemporaries, and his M.S. and Ph.D. degrees from the University of Michigan in 1962 and 1964 respectively, all in Chemistry. After conducting postdoctoral research at Lawrence Berkeley National Laboratory, he joined the Department of Nuclear Engineering of the University of California Berkeley in 1966, where he served until his transition to Professor of the Graduate School in 2004.

Prussin was internationally recognized in the fields of low energy nuclear physics and applications, nuclear chemistry and radiochemistry, and nuclear instrumentation radiation detection and measurements. During his career he was the recipient of an Alexander von Humboldt Fellowship and a NATO Senior Fellowship, enabling him to spend sabbatical years at the Institute for Nuclear Chemistry at the University of Mainz, where he met his future wife. He was the author of a widely used book in the nuclear engineering discipline, *Nuclear Physics for Applications: A Model Approach* (Wiley, 2007).

Stan was an esteemed member of the Department and the entire Berkeley community, embodying the highest ideals of a university professor and researcher. Stan's focus was on 'the fundamentals' which included critical thinking, clear motivation, development of a team environment, good experiment design with defensible uncertainties, expressing one's work clearly and accurately, and a strong ethical sense where honesty was paramount and all contributors were properly credited. Much of his mentoring occurred in social situations, often on hiking trails near his home in the Berkeley hills or backpacking in the Sierras. For many, becoming his student was the beginning of a personal and life- long connection that often extended past the University and joined families.

'Passion' was the word most often invoked by his students to describe his dedication to education, which was not simply inculcation of skills, but a personal interest and involvement in all details of his students' lives and their subsequent accomplishments. Supporting his students in all its aspects was central to his ethos; when a thesis experiment required the reactor to run three shifts per day for several days, Stan obtained an operator's license and ran the reactor for the unscheduled two shifts each day.

Particularly after the terrorist attacks of September 11, 2001, Prussin's research turned towards nuclear non-proliferation and nuclear forensics. The specter of a terrorist nuclear weapon being detonated in a US city drove him to work relentlessly, years beyond when his colleagues had retired. Many of his former students became senior figures in the DOE nuclear security labs, then managed by the University of California. Much

of his research was conducted at Lawrence Livermore National Laboratory, and he served for many years on the Nuclear Forensics Science Panel of the National Nuclear Security Agency and the Department of Homeland Security.

Stan's passion extended to politics and international affairs, and his first graduate student, who was from the Middle East, remembers long and challenging discussions and debates with him on US foreign policy. But he also remembers that Stan always insisted in searching jointly with his interlocutor for the facts behind the argument and political positions, and that the Mideast wars of those times in fact brought them closer together to common beliefs. He always told this student that he wanted to meet him to celebrate peace in the Middle East across the Jordan Valley, a dream that one day truth with peace and humanity would prevail for all.

Stan was particularly solicitous for the broad representation of California's citizens in the University's mission of public education. He served briefly as Associate Dean for Special Programs in the College of Engineering and worked with the Professional Development Program for many years. He worked throughout his years at UC Berkeley towards decreasing barriers against underrepresented students experienced in all aspects of their education. He always worked in the interests of the unprivileged segments of society and the student body, and devoted time, effort and creativity to support initiatives to give them a level playing field.

After his diagnosis with pancreatic cancer in spring 2012, his pace of work intensified in spite of the spiral of ever-increasing therapeutic measures to arrest the disease, so much so that his department chairman affectionately dubbed him his "warhorse". He created a popular new course with Professor Michael Nacht Nuclear Technology and Policy, served on an important IEEE/ APS national study of the Domestic Nuclear Defense Organization, and broke new ground in forensics research analyzing glassy particulate fallout from pre-1962 above-ground nuclear tests. He actively mentored his four remaining Ph.D. students up to the week of his demise.

Stan's passion for teaching and learning diffused into all aspects of his life. He was willing to teach, and be taught by, anyone. He was an avid reader, especially of books on past presidents, which he would assign to others to read and discuss. He had a great love and respect for the wilderness and shared many backpacking trips into the Sierras and other national parks with family and friends. He hiked through the Karakoram Mountains, Patagonia, the steps leading to Machu Pichu, by the glaciers in Greenland, and anywhere he could find a trail, trees, and lakes. He could be found at any given moment hiking in Tilden Park or standing at the top of Wildcat Peak admiring the beautiful place in which he lived. And in winter he could be found skiing the mountains near Lake Tahoe and was always easily spotted in his 70's powder blue parka. He had a remarkable sense of humor and loved to laugh over a good bottle of wine with friends and family.

Stan was a sensitive, sincere and warm human being and above all a dear friend, mentor and brother to everyone he knew. He was much beloved by his colleagues and was a model for lifelong service to the University. He leaves a legacy behind that is hard to replace, displaying throughout his career leadership and dedication to excellence in teaching and the pursuit of advancing scientific knowledge, and truth in general, with humility, enthusiasm and a commitment to be engaged.

Professor Prussin's passion went beyond his work and the University. He was a beloved husband, father, brother, nephew, and friend. He is survived by his wife, Traudel, herself a chemist and artist, and two children, Stephanie and Alexa.

Dr. Traudel Prussin
Stephanie Prussin
Alexa Prussin
Prof. Karl van Bibber
Dr. Adnan Shihab- Eldin
Dr. Dennis Slaughter