DOCUMENTS OF THE GENERAL FACULTY

REPORT OF THE MEMORIAL RESOLUTION COMMITTEE FOR RAYMOND “RAY” EDWARD DAVIS

The special committee of the General Faculty to prepare a memorial resolution for Raymond “Ray” Edward Davis, professor emeritus, College of Natural Sciences, Department of Chemistry and Biochemistry, has filed with the secretary of the General Faculty the following report.

Dean P. Neikirk, Secretary
General Faculty and Faculty Council

IN MEMORIAM RAYMOND “RAY” EDWARD DAVIS

Raymond “Ray” Edward Davis was born on November 7, 1938 in Hobbs, New Mexico to Edward and Louise Davis. He moved to Neodesha, Kansas, where he would spend his childhood years, at the age of two. Ray’s wife, Sharon, was kind enough to share some memories of his early childhood and high school years that reveal how his interest in the arts and sciences developed. Ray’s father was drafted into the navy in 1944, and his family had the opportunity to visit him in San Francisco, eventually watching the fleet depart from the world-famous Cliff House. After returning to Neodesha by train with his mother and younger brother Ken, Ray began to take piano lessons at the age of five, at the suggestion of his mother, who wanted to surprise Ray’s dad upon his return after the war. Not having a piano at home, Ray walked a few blocks to his grandmother’s house where he practiced diligently daily, and he did indeed impress his dad with a performance of something special upon his father’s return. Ray was very proud that he had pleased his father in this way and continued to study the piano until he graduated from high school in 1956. He also played French horn in the high school orchestra.

Ray’s interest in science was inspired and nurtured by Mr. Vaughn, his science teacher, who prepared him well for his eventual success in college and beyond, and the Science Club became his passion. As a tribute, Ray dedicated one of the early editions of his textbook to Mr. Vaughn. Ray met Sharon Klingenberg, his high school sweetheart and the love of his life, in Neodesha, and their mutual love of music formed a bond throughout their courtship and fifty-three years of marriage. Ray loved to accompany Sharon as she sang at a number of contests, weddings, and family gatherings during their early years together, and they continued to perform for their family. Ray and Sharon were very gracious to invite many members of the faculty to their holiday gatherings over the years where we all could watch them perform to the joy of their audience, which included their beloved children, Angela, Laura, and Brian, and cherished grandchildren.

Ray attended the University of Kansas at Lawrence, where he was proud to be a member of the Phi Beta Kappa Society, and he received the Bachelor of Science with Honors degree in 1960. Ray and Sharon were married in the summer of 1960 in the First United Methodist Church in Neodesha, and the couple moved to New Haven, Connecticut, that fall, where Ray would enroll as a graduate student in the Department of Chemistry at Yale. Ray’s lifelong affection for X-ray crystallography began during his graduate years there, and he continued to broaden and deepen his expertise in the area with a two-year postdoctoral stint at the Roswell Park Memorial Institute in Buffalo, New York, as a cancer research scientist. Letters of recommendation for his appointment as an assistant professor cited his pioneering work in the X-ray crystallography of small organic molecules, his expertise in crystallographic computation, which was in its infancy at the time, his understanding of biophysics and, perhaps most interesting, his demonstrated gift for teaching. Ray was considered by many, including the famous physical chemist and theoretical physicist Lars Onsager, a Nobel Laureate, to be among the very best of
the newly trained crystallographers of his generation, but to have also been identified early on as potentially the
great teacher he became was quite an accomplishment indeed.

Ray accepted a position as assistant professor in the Department of Chemistry at The University of Texas at
Austin in the fall of 1966, joining a number of other assistant professors hired at about the same time. This
group of young faculty members immediately elevated the stature of the department, and all went on to have
long and distinguished careers at the University. Ray clearly played a leadership role during that period,
establishing his X-ray facilities and developing a number of collaborations with other faculty members both
here and elsewhere. He was promoted to associate professor, with tenure, in 1970, which would have been
considered early in those days; early promotion was granted only to recognize exceptional contributions to
research and teaching. He was promoted to full professor in 1976, a position he held until his retirement in
2006. Ray was named professor emeritus in 2008.

Ray developed and sustained an active research program throughout his career, supervising dozens of M.S.
students, Ph.D. students and postdoctoral fellows. He also supervised the undergraduate research of perhaps a
hundred students over the course of his career, many of whom went on to graduate school to become
outstanding chemists themselves. Ray once told us, and this is undoubtedly true, that prior to the advent of
campus-wide large-scale undergraduate research programs like the Freshman Research Initiative, he had
probably trained more undergraduate researchers than any other member of the chemistry faculty. He was very
proud of that legacy and deservedly so. Ray served as co-chair (with Marv Hackert) of the local committee for
the 2002 National Meeting of the American Crystallographic Association (ACA) and was selected to serve as
the ACA President for 2003, both honors in recognition of his scholarly wo rk in crystallography and
demonstrated leadership ability.

Despite his accomplishments in research and the training of graduate students and postdoctoral fellows, there is
no doubt that teaching undergraduates, particularly freshmen, was Ray’s true passion. He created a method for
teaching very large (five hundred students) freshman chemistry courses that engaged and stimulated his
students, a style that was unprecedented in the department at the time, but one that would soon stimulate young
faculty members to adopt his approach. It must have been effective because Ray, for example, was honored
time with the Outstanding Teacher Award, given by a number of freshman honor societies. He was also
named the Minnie Stevens Piper Professor and received the Jean Holloway Award for Excellence in Teaching
in 1996, the campus’ oldest and most prestigious campus-wide teaching award. Fittingly, he was a member of
the inaugural class of the Academy of Distinguished Teachers and retired with the title Distinguished Teaching
Professor Emeritus.

Ray’s example changed the character and importance of undergraduate teaching in the department; he inspired
young faculty members to become excellent teachers by example, and it was not long before a friendly
competition ensued among the faculty to be recognized for the quality of their teaching. There were several
periods of time during Ray’s career that chemistry had more members of the Academy of Distinguished
Teachers and more Holloway Award winners than any other department on campus, a remarkable achievement
for an academic unit that teaches such a challenging subject. Suffice it to say, it would not have happened
without Ray’s example.

Ray began writing freshman textbooks in 1983, in collaboration with Ken Whitten and Ken Gailey (Georgia);
Larry Peck (Texas A&M) and George Stanley (LSU) later joined the author team. The tenth edition of this
widely adopted and much admired general chemistry textbook was published in January 2013, and Ray was
already beginning to work on an eleventh edition at the time of his death. He and his colleagues reached
perhaps one million students over the nearly thirty years and nine editions of the book in which Ray was
involved. It’s hard to imagine a more significant contribution to the education of university students interested
in science and engineering. As if that contribution was not significant enough to satisfy Ray’s ambitious goals,
he also wrote several high school chemistry textbooks to introduce younger students to the subject he loved.

Ray’s friends, family, and colleagues gathered to remember him fondly at his memorial service. Among the
many kind words that were spoken the following quotes seem to sum things up the best. “And above all, the
Ray who was simply a fine human being, and one I will always count among those who have so enriched my
life and the lives of so many others. Ray, you will be sorely missed.” And “Finally, Ray was the model of what
a husband, father, and grandfather should be. He was the Rock of Gibraltar in both good and challenging times for the family. He left us much too soon. May we share many stories about this wonderful human being and continue to hold him in our thoughts and prayers.”

The Committee is grateful for the remembrances and kind comments shared by Ray’s family, especially his wife, Sharon Davis, and his longtime friends, Joel Bernstein and Jack Gilbert.

This memorial resolution was prepared by a special committee consisting of Professors Alan Campion (chair), David A. Vanden Bout, and John C. Gilbert.

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