



## **Dale R. Corson**

April 5, 1914 – March 31, 2012

Dale Raymond Corson was a man of extraordinary accomplishments and profound human understanding. His bright mind, coupled with his reputation for genuine humility and personal integrity, enabled him to deal with complex, politically-charged matters, and these characteristics were vital to his success when Dale became president of Cornell University during a period of unprecedented campus turbulence. His habit of carefully recording details in his notebook during his physics experiments carried over to his leadership roles. When Dale made a commitment he kept it, down to the last detail.

As a child in rural Kansas, Dale was attracted to physics as an intellectual pursuit and as a career. He pursued that vision through the grim years of the Great Depression while earning degrees at the College of Emporia (A.B.), University of Kansas (M.A.), and University of California at Berkeley (Ph.D.) After becoming a postdoctoral fellow at Berkeley, he participated in the creation and use of a particle accelerator in Ernest O. Lawrence's laboratory. Using the new accelerator, Dale and associates Ken MacKenzie and Emilio Segre placed a new element – astatine – on the periodic table and measured its chemical properties.

When World War II engulfed Europe, Lawrence summoned Dale to join the MIT Radiation Lab to work on a top-secret military project, the development of airborne radar systems. Dale played a vital role in the operational deployment of radar technology by helping to work out in London, during some of the worst months of the Nazi aerial blitz, vital cooperation between the hitherto independent British and U.S. laboratories. He was assigned to continue his work on radar as a military advisor in the newly built Pentagon. From there Dale went to Los Alamos, where he led in the creation of Sandia National Laboratory, now the largest of 700 national laboratories. Following the launch of Sputnik in 1957, he served on the National Advisory Committee on Aeronautics, which recommended the creation of the National Aeronautics and Space Administration (NASA).

Dale was among a group of eminent physicists, which included Hans Bethe and Robert Wilson, to join the Cornell faculty after the war. His first research assignment was in the design,

construction, and early operation of the 300-MeV synchrotron, Cornell's first electron accelerator. It was also one of the first synchrotrons to operate successfully, and a precursor to the famous Wilson Synchrotron Laboratory. Undergraduate teaching was a priority for him, and he collaborated in writing a well-known physics text. Dale became full professor in 1952. In recognition of his great skills in teaching, research, and administration, Dale was elevated to chair of the Physics Department in 1956.

In 1959, he was appointed dean of the College of Engineering. Such rapid advancement has been known to make people imperious, but Dale stayed true to his sensible Midwest roots. He was aware, for example, that some college faculty members questioned whether he even qualified as a "real" engineer—and he conceded the point. "There was no logic at all to my choice as the dean of the Engineering College," he once recalled. "I was a last minute substitute after the prime candidate, whom I had helped recruit, withdrew." As dean, Dale effectively pushed for the integration of the sub units of the various departments, interdisciplinary relationships in the college, and the principle that engineering faculty should have some experience in industry. After winning a multi-million-dollar grant from the Ford Foundation for the college, he transformed parts of the curriculum and gave graduate research new emphasis and resources. With great foresight, he also nurtured interest in the use of the digital computer, then just beginning to show its potential.

Dale became university provost in 1963, at the request of the new president, James Perkins, and in that capacity he successfully addressed a wide range of issues, including substantially strengthening the library system to helping develop the Arecibo telescope in Puerto Rico. He also gathered the biological science programs, which were dispersed among multiple colleges, to form the Division of Biological Sciences, thereby fostering greater synergy among the departments at Cornell.

President Perkins assigned to Dale the task of increasing Cornell's diversity. With volatile national political debates over such issues as the Vietnam War and civil rights as backdrops, the university rapidly increased its enrollment of students of color. These students brought with them a commitment to making their own voices heard within the academic community and a sense of urgency about doing it. They encountered faculty and other groups just as committed to changing the campus by consensus and by non-violent means. In April 1969, the increasingly embittered confrontation climaxed with the takeover of Cornell's student union by African-American students. President Perkins resigned the following month.

The task of settling the differences and restoring peace fell to Dale, first as interim president, then as president. During the crisis, Dale had successfully insisted that it be handled without the intervention of squads of police and others from around the state who had gathered in downtown Ithaca for such an intervention. He had positioned himself to make decisions that were both wellinformed and courageous. Dale had become one of the few persons who remained (and over the next 43 years would remain) close to African-American student leaders, while continuing to have the trust and cooperation of those who strongly opposed the Straight takeover. Noted alumni were alienated by the crisis, but they overwhelmingly supported Dale's policies as the campus slowly returned to its usual teaching and research schedules, despite the growing,

sometimes violent, national protests which were demanding an historic transformation of civil rights and an end to the Vietnam War.

In later years, Dale reflected on that period with wry good humor: “I was never actually inaugurated. Instead there was an investiture at Commencement following my first year in office. . . . There were demonstrations and disruptions and two attempts to take over the microphone. [Professor] Morris Bishop made international news when he bent the [University Mace] jabbing the protestors in the ribs. Those were the days!”

It was Cornell’s good fortune that the new president was universally trusted. Dale patiently consulted with all sides and made it clear that he understood what was said. John Marcham, editor of the *Cornell Alumni News*, observed in July 1977 that Dale “was known . . . as someone who could figure out the real end result and price of carrying out a flowery educational principle. Not only had he thought it out in his head, but he probably also made note of it in the little notebook he always seemed to have with him. As a consequence, when he said something was possible, members of the university community knew it was in fact possible. . . . Factions which distrusted one another would allow his administration the time to knit back together the fabric of a torn institution.”

Dale served Cornell as president from 1969 to 1977. Throughout those years he was acutely aware of the need to balance the university’s budget (even during a period of high inflation), and of the increasing demands on the colleges, while at the same time he emphasized the danger these needs would pose for controlling student tuition. The record shows that it was he who insisted on dispensing with a formal inauguration in favor of a much less costly Investiture. Perhaps because of his own appreciation of the value of access to higher education, Dale worked hard over many years to keep Cornell financially affordable.

He also continued to nurture fundamental programmatic changes. Dale worked with William Gordon to create Cornell’s Center for Radio Physics and Space Research; with Don Greenberg to develop the emerging field of computer graphics; and with Henri Sack, Robert Sproull, and James Krumhansl to form what is now the Cornell Center for Materials Research, a highly successful and widely copied model for university-based, multidisciplinary research. Dale also provided institutional support for Africana Studies, water resources, Women’s Studies, and for the Humanities in general.

Retiring from the presidency in 1977, he agreed to stay on as chancellor, much to the delight of his successor. Dale concentrated on the Cornell Medical College in New York City, which was experiencing financial and administrative difficulties, and thus freed the new president to focus more on the Ithaca campus. Dale also prepared a thoughtful analysis of long-term issues facing higher education during those two years.

After 1979, Dale served on a number of National Academy/National Research Council committees. He formed the Government-University-Industry Roundtable, which continues to promote communication among national leaders. He led United States higher education scientific exchanges with Japan and a newly opening China. Dale shaped what became a 10- year-long World Bank effort that generated \$2 billion of low- or no-interest loans to help bring leading

Chinese universities back from the near-abyss of the Cultural Revolution. In 1982, he chaired a landmark National Academy of Sciences study, now known as “The Corson Report,” that was a stringently argued protest against increased secrecy in government-funded science. National Academy of Sciences president Frank Press said of Dale’s service, “The nation is in your debt.” For this and other contributions, he received the Public Welfare Medal from the NAS. Dale was also elected to the National Academy of Engineering in 1981 and was awarded its Arthur M. Bueche Award for national service in science and technology policy.

Dale enjoyed excellent health and was mentally alert to the end of his nearly 98 years, characteristics that he attributed to good family genetics. He was married to Nellie Griswold Corson for more than 73 years, and together they raised four talented and accomplished children. In their senior years, Dale and Nellie lived in Kendal at Ithaca, a retirement and continuing care facility Dale had been a leader in establishing, and which is adorned by many of his professional quality photographs. He continued to meet with colleagues, as well as alumni and other friends from around the world, while he remained closely in touch with the university to which he devoted his life.

As a young physicist and after 1979 as a distinguished international figure, Dale played crucial roles in shaping the post-1930s revolution that occurred in international science. As chair, dean, and provost, he was a seminal figure in creating a university that met the high, and highly complex, demands of a rapidly changing postwar world. As Cornell’s president, Dale was indispensable in restoring a settled yet vibrant campus that could return to carrying out successfully the unique mission enunciated by its founders.

*Maury Tigner, Chairperson; Frank Rhodes, Walter LeFeber*