Russel E. MacDonald

February 18, 1928 – February 20, 2017

Russel Earl MacDonald, 89, died on February 20, 2017. Russ was an emeritus faculty in Biochemistry, having retired in 1986. Russ was born in MacDonald's Point, New Brunswick and earned B.A. and M.A. degrees from Acadia University and at Ph.D. from the University of Michigan.

In 1957, Russel joined Cornell University as an Assistant Professor of Bacteriology in the Department of Dairy and Food Sciences. He subsequently was promoted to Associate Professor with tenure in 1962 in the Department of Microbiology, and then moved to the Section of Biochemistry, Molecular and Cell Biology, in the old Division of Biological Sciences, where he was promoted to Full Professor in 1981.

During his graduate and professional career, Russell was awarded the Jane Coffin Childs Memorial Fund for Medical Research Foundation Fellow, the NASA-Ames Life sciences Faculty Research Fellow, and the H. Julian Allen Award for outstanding scientific paper (1978).

Russell's general research area was in microbiology and bacteriology. He was best known for his work with Halobacterium halobium, now known as H. salinarum. Originally categorized as a bacterium, H. salinarum, is taxonomically a member of the Archaea kingdom, which was only recognized as a separate kingdom in 1977. H. salinarum is an extremophile that grows in very high salt environments, thus making its physiology and biochemistry quite interesting in order to survive under such conditions. It is in this area that Russell published over a dozen papers, focusing on light-induced transport of amino acids and ions across the H. salinarum plasma membrane. Many of his papers were published in leading journals including Science, the Proceedings of the National Academy of Sciences, and the Journal of Biological Chemistry.

Russell loved all things science, gardening, cooking, poetry and plays, debating politics, travel and fighting the good fight. He is survived by three children, Andrew, Erik, and Jane MacDonald, granddaughters Annabel, Viola, and Marit, and numerous cousins.

Written by William Brown
Bonnie Graham MacDougall, of Ithaca, New York and Alexandria, Virginia was Professor Emerita at Cornell University where she taught for 35 years in the Department of Architecture. She died unexpectedly on November 26, 2017, at the age of 76. Bonnie was born to Joseph London Graham and Myrtle Agnes Fivehouse Graham, on July 2, 1941, in Teaneck, New Jersey. She moved to Alexandria with her family when she was 8 years old where she spent the rest of her childhood, and where she later spent much of her retirement.

Bonnie graduated from Cornell University as an undergraduate in 1962 and completed her graduate work earning her Ph.D. in Linguistics, in 1973. She met her husband, Robert "Scotty" Duncan MacDougall at Cornell University, and was married in 1962. Their marriage was the beginning of a nearly 25-year personal and academic partnership, in which they collaborated on research and cross-trained each other in their respective disciplines. Although Robert predeceased Bonnie in 1987, Bonnie continued their collaborative work and published a digital collection of 7,000 of Robert's photographs, *Beyond the Taj: Architectural Traditions and Landscape Experience in South Asia* (2009). At the time of her death Bonnie was completing a second digital collection, since launched by the Cornell University Library as *Depicting the Sri Lankan Vernacular* comprising more than 500 images. In addition, her works on Sri Lankan architecture include *Sinhalese Domestic Life in Space and Time* (coauthored with Robert) and *Text into Form: Dwelling, Cosmos, and Design Theory in Traditional South Asia* (2008). She also wrote on the astronomy of Jantar Mantar (1996) and the city of Chandigarh (1996).

Bonnie was a professor and administrator at Cornell University from 1979 until her retirement in 2014, as well as a lifelong Cornell student. As a historian and social scientist, she was quite accomplished. She was a true polyglot—knowing at least ten languages—11 if you count the nicknames she had for everyone. She was a two-time Fulbright scholar (1979, 2011), the first director of the Cornell South Asian Language and Area Center (from 1983-1988) for which she raised two million dollars and was instrumental in helping establish the Cornell University/Syracuse University South Asia National Resource Center, a recipient of the Martin Domínguez Distinguished Teaching Award in 1998, and a Faculty Innovation in Teaching Award in 2006.

In her many years in the Department of Architecture, she taught most of the architecture students in a required course on the culture of architecture. To think that she single-handedly taught every Cornell Architecture student over decades is mind-boggling. And it should be noted that she never shied away...
from large numbers—as she knew how to fill the Statler auditorium with 1,000 bodies. According to many students, she was the best teacher they ever had. As one student observed, it was in her required course where he first learned that buildings could be round and made of twigs.

Bonnie was a behind-the-scenes advocate for women. Maybe because she had raised two daughters or because she analyzed the changing world for her two grand-daughters. I don’t know, but she was always supportive of leading a life that combined the professional and personal. She provided a model of generosity combined with extreme literacy and straight-forward verbiage. We all relied on her insights and observations—which is why she encouraged everyone to call her any time of the day or night. Which many of us did.

Bonnie was a great storyteller. She would recount how there was a sentry stationed at the end of the Thurston Avenue bridge in the early 1960s to ensure that all women making their way onto the main campus had on skirts. Not surprisingly, she had colorful stories about the perils of doing research in Sri Lanka—there were rogue pythons that crossed the path she was travelling on a motorcycle with Scotty. There were lizards in the latrine and the torrential monsoons in Colombo. She even claimed that she heard creatures scratching under her cabin at the Yala National Park on the island. And of course, she made great chai. Cooking did not seem to be an interest—her fridge rarely had anything more than yoghurt, cottage cheese and expired milk. Nonetheless, she had strong opinions about chai.

Bonnie is survived by her two daughters, Carlin ‘94 (B.Arch. ’99, M.Arch. ’00) (Jordi Mack, B.Arch 1999) and Margaret MacDougall ‘96. She is also survived by her granddaughters, Elizabeth and Julia Mack.

A sign on her office door (given to her by students) seems to have said it all “Bonnie MacDougall, sponsor of many extraordinary things.”

As one of her friends observed, we were so lucky to have such a zany and generous colleague.

We were.

*Written by D. Medina Lasansky*
Eugene Lewis Madsen

February 24, 1953 – August 9, 2017

Professor Eugene Lewis Madsen, age 64, brilliant environmental microbiologist, devoted husband and father, creative teacher, inspirational mentor, accomplished gymnast, good friend—was born on February 24, 1953 in Oakland, California, and died in a tragic accident at his home in Ithaca on August 9, 2017.

Eugene was the son of Donald and Margaret Lewis Madsen, the husband of Jane Walker ’78, and the devoted father of their two children, Cecelia Madsen ’12 and Sidney Madsen ’13. He is survived by his brother, Peter Rentz, and sister, Jane Madsen. Eugene is missed by all the members of his extended family, and many friends, collaborators and students at Cornell and around the world.

Eugene first came to Cornell in 1979 after earning a B.A. in chemistry at University of California, Santa Cruz (1975) and a B.S. in Soil Science at Oregon State University (1978). At Cornell, he matriculated as a graduate student with intent to study environmental microbiology in the laboratory of the renowned soil microbiologist, Professor Martin Alexander, in the Department of Agronomy (now the section of Soil and Crop Sciences in the School of Integrative Plant Science). Under Professor Alexander, he earned both Master of Science (1981) and Doctor of Philosophy (1985) degrees. After graduation, Eugene worked briefly in the New Jersey Pine Barrens at Rutgers University’s Division of Pinelands Research, then he moved to a post-doctoral position with Professor Jean-Marc Bollag at Pennsylvania State University, where he did pioneering studies on microbial life in deep subterranean and groundwater environments. In 1989, after a one-year stint as senior microbiologist at MSI Detoxification, Inc., a private environmental science consulting company in Bozeman, Montana, he returned to Cornell as a Research Scientist in the laboratory of Professor William Ghiorse, who was the new chair of the recently-formed Department of Microbiology in the College of Agriculture and Life Sciences. Eugene was promoted to the position of Research Assistant Professor in 1992. By 1999, he had established himself as an independent research scientist capable of funding his own laboratory and he was granted a tenure-track Assistant Professor position in the Department. He was promoted to Associate Professor with tenure in 2002 and to Full Professor in 2009.

Eugene was an unusually gifted environmental microbiologist whose research career spanned four decades. His research focused primarily on the understanding of fundamental microbial activities in natural environments. In his own words this included: “documenting the ‘who’, ‘what’, ‘how’,
‘where’, ‘when’, and ‘why’ of microbiological processes in soil, water, sediments, and ground water.” He was, perhaps, best-known for his long-term, in-depth, basic research studies of a coal tar waste disposal site in upstate New York where he applied powerful molecular techniques and innovative field-oriented methods to understand the underlying microbial ecology affecting the bioremediation processes occurring at the site. During these studies he trained and mentored numerous graduate and post-doctoral students, and he collaborated freely with scientists at Cornell and many other institutions. He published over 150 influential primary research papers and review articles in a variety of top-flight, cross-disciplinary scientific journals and was frequently invited to give lectures around the world. Eugene was an exacting scientist with many of his most highly cited publications setting the gold standard for working in complex environmental systems. He is perhaps best known outside of Cornell for his widely used textbook, *Environmental Microbiology: From Genomes to Biogeochemistry*, now in its second edition, which was published in 2016. The book is based on a course he taught for many years in the Department of Microbiology.

Eugene was a talented and creative teacher. Starting in 1995, he taught both undergraduate and graduate level courses in Environmental Microbiology. From 1997 to 2002, he co-taught that course with Professor Ghiorse, and he took over the course as its sole instructor in 2003. In 2005, he began co-teaching a new course for freshmen–Introduction to the Science and Management of Environmental and Natural Resources–with James Lassoie and Timothy Fahey from the Department of Natural Resources. That course transitioned into the introductory course–Introduction to Environmental Science and Sustainability—for a new multi-departmental Environmental and Sustainability Sciences major in 2013, co-taught with Clifford Kraft. Eugene’s enthusiasm for students was always evident in the classroom and in his lectures, in which his lively nature and engaging personality were constant.

Eugene was a member of the graduate fields of Microbiology and Environmental Toxicology at Cornell, and active in professional societies including the American Society for Microbiology, the American Chemical Society, the Society for Environmental Toxicology and Chemistry, and the American Association for the Advancement of Science.

Eugene loved his research and teaching, but he loved his life beyond work even more. He was enthusiastic about every aspect of his life. He was devoted to his family and his students, especially to his wife and two daughters, to his trumpet playing, and to his gymnastics activities. Eugene mentored many undergraduate, graduate, and post-doctoral students, who are now faculty members and researchers at universities around the world; but his daughters are the students he valued the most. He taught them all by example, with unconditional love and total respect.

Eugene was an accomplished trumpet player. He played in the Ithaca Concert Band, and with friends in Friday night quartets. He even played for students in his classes, and he often played at the opening ceremonies at Cornell’s gymnastic meets as well as at many family functions.

Eugene was an active person who was often seen riding a bike—not a fancy bike—as he went from place to place on campus. His most regular destination was a daily visit to Teagle Hall where he swam, did gymnastics and was notable for being unusually fit and athletic. At the time of his death at age 64, he was still in top physical condition. He would often arrive around noon for open pool hours, where Eugene developed friendships with many fellow swimmers who enjoyed his enthusiasm and friendliness. Then, after swimming, he would often appear in the locker room with bandaged hands covered in gymnast’s chalk. Remarkable for his age, he was still a practicing gymnast able to make difficult routines on the high bar look easy. One of his most impressive accomplishments in the months prior to his death was performing a “giant” on the high bar—a very impressive complete circle, fully extended, around the bar. He was a faculty advisor to the Cornell Gymnastics club from

Eugene was curious about every aspect of the world, and nothing was too trivial to attract his attention. He was extremely self-disciplined and quite proud of his frugal demeanor and the lack of waste in his life. He never wasted anything. However, he was humble and modest about his academic accomplishments, including his widely used text book mentioned above. Looking ahead, it is sad to realize that students and colleagues reading the latest edition of his book will no longer have the opportunity to appreciate his dynamic, insightful lectures and their very energetic delivery that often included a trumpet solo for emphasis.

Beyond his outstanding research and teaching contributions, Eugene had a particularly penetrating sense of humor. This is best seen in his 2014 self-published collection of unique annual cartoon cards, titled: “Parade of Unconventional Voices: Cartoons of Art, Humor, and Philosophy”. The main characters in the cartoons are often set in remote, vast western landscapes where gnome-like specks of sand or dust, evoke voices in the wilderness, having imaginative conversations at an International Conference or a Global Summit Meeting. The 2017 edition was the “International Conference on Pithy Statements”. The recurring theme in all of these cards is a deep, reflective, but irreverent, conversation that usually ends with a pun. He created them each year to send his best wishes for a Happy New Year to all.

We sorely miss Eugene, especially his annual messages of unique art, humor, and philosophy; but most of all we miss his collegial warmth and enduring friendship.

Written by William C. Ghiorse (chair), Esther R. Angert and Clifford E. Kraft
With assistance from Christopher M. Derito
Richard P. March, Professor Emeritus, Food Science, died at the age of 93 at the Riverwoods Retirement Community in Exeter, New Hampshire. He was born in Medford, Massachusetts on May 1, 1922. In his early years, he developed an interest in dairy manufacturing, prompting him to enroll in the University of Massachusetts, with a major in Dairy Industry. There he met his wife Barbara, an English major, who even then began to help him with his work by taste testing the ice cream he was manufacturing in one of his courses.

After receiving his Bachelor of Science degree in 1944, he served in World War II with the Marines. He participated in the invasion of Okinawa on April 1, 1945. When the war ended, he was transferred with the First Marine Division to North China until August 1946.

Richard’s Cornell connection began in the fall of 1946, when he began graduate work in what was then the Department of Dairy Industry (now Food Science). Starting as a teaching assistant in October 1947, he earned the M.S. degree in 1948 joining the faculty as an instructor. A series of promotions led to his becoming a full professor in July 1965. At his retirement in 1977, he was named Professor Emeritus.

Professor March’s first assignment at Cornell was to teach the one-year program in dairy manufacturing. This was designed as an entry-level course to train dairy plant workers. He later taught courses in Market Milk, Fluid Milk Processing and Quality Control. In 1965, he was appointed Department Extension Leader, serving until 1977. This became his major effort at Cornell, where through his work with Cooperative Extension he assisted in developing procedures for the modern system of bulk milk cooling and collection. He produced films and bulletins that were used throughout the Northeast.

His interest in milk sanitation led to an appointment by Governor Rockefeller in 1962 to study the possible impact of the National Sanitation Act on New York dairy farmers and milk production. His work resulted in closer collaboration between Cornell and the Department of Agriculture and Markets. That early connection continues today.

Professor March’s direct involvement with the dairy and food industry began in 1956 when he became Executive Secretary/Treasurer of the 600+ member New York State Association of Milk Sanitarians (now NYS Association for Food Protection). He served in that capacity for 24 years. During that time he became involved on the
national level through his membership on the board of the International Association of Milk, Food and Environmental Sanitarians. He was honored by that organization with the 1974 Educator/Industry award. During his service with the New York association, he received that group’s two highest awards: The Dr. Paul B. Brooks Memorial Award in 1963 and the Emmet R. Gauhn in 1972. He was awarded Honorary Life Membership at his retirement.

Upon his retirement from Cornell, Richard embarked on a second, but similar career. He became Executive Secretary and later Executive Vice-president of the Northeast Dairy Council. The mission of this organization was to provide uniform laws and regulations for milk and dairy foods throughout the Northeast states. The program was so successful under his leadership that the name was changed to Dairy Products Council to serve the whole country.

In 1967, Richard spent a sabbatical six months in Ireland at the Agricultural Institute in Fermoy, helping with their milk collection systems. His second sabbatical came with a grant from Milk Plant Specialties Corporation to conduct a national survey of dairy regulations, which ultimately resulted in establishing greater uniformity throughout the industry.

For 50 years, the Marchs were active members of the Ellis Hollow community. He actually built his family home on Ellis Hollow Road from a Sears Roebuck “kit” that arrived at the rail siding in downtown Ithaca. It had many innovations, including heating the pool by circulating the water through pipes on the roof – well before that became a common practice.

Professor March is survived by his wife Barbara, two sons and their wives, Steven and Donna, and Thomas and Priscilla, one daughter Betsey and Randy, eight grandchildren and 12 great grandchildren.

David K. Bandler and James C. White
Professor Emeritus of English Phillip L. Marcus taught at Cornell from 1967-1995 where, after taking his Ph.D. at Harvard, he made his mark as a brilliant teacher-scholar. After retiring from Cornell, he began a second career at Florida International where he excelled at teaching a somewhat different kind of student than those he encountered in the Cornell College of Arts and Sciences.

What greater compliment can his memorial committee pay than to say that we all learned from him? The chair of this memorial committee never missed a chance to talk about William Butler Yeats, James Joyce and Irish culture with Professor Marcus. Professor Michael Colacurcio, his Cornell colleague and closest friend here, and now Distinguished Professor at UCLA, recalls: “What I know about William Butler Yeats I learned from Professor Phillip L. Marcus—at breakfast in the basement of the Cornell Statler Club, where we went, almost every day, to complain about the weather and lament the fact that historicists like ourselves could not...[practice] theory. . .”

He was one of the world’s leading Yeats scholars, Co-General Editor of the Cornell Yeats, and author of two of the most important critical and scholarly books in Yeats in the last fifty years: Yeats and the Beginnings of the Irish Renaissance (1968) and Yeats and Artistic Power (1992). His publications include an important study of Standish O’Grady (1970). He also co-edited a collection of essays on D. H. Lawrence (1985) as well as a variorum edition of Yeats’ stories entitled The Secret Rose which he co-edited (1981). He also published many essays in the field of Irish studies. With 27 completed volumes, his authoritative Cornell Yeats edition is considered by scholars one of the most important scholarly projects in the study of modern literature. Having expanded his teaching and scholarly interests into American Literature, he recently completed a major essay entitled “The American Crisis Poem.”

Professor Winthrop “Pete” Wetherbee recalls: “In 1967 and 1968 the English Department took in eighteen new assistant professors, and there was great solidarity among us. A pleasant
memory of those early years is of the open house that Phil and his office mate, the late Frank McConnell, maintained in their office in Goldwin Smith. It was a matter of course to drop in with coffee before the teaching day began, to chat, to joke, and compare notes on our teaching. We all appreciated the contagious effect of Phil's enthusiasm for teaching. He loved to talk about his classes, and the gifts and foibles of his students, often with remarkable insight into the personalities their work revealed.”

Having gone to the University of Kansas City as an undergraduate (B.A. 1963), Professor Marcus was undaunted by first generation students he encountered at Florida International. These students were often from economically deprived backgrounds and many were from families where English was not the primary language.

In 2004 he won Florida International’s Excellence in Teaching Award. James Sutton, his former chair there recalls: “Phil was beloved by our students. When we had the memorial service, more than 20 of his students came up to the podium “uninvited” to talk about how Marcus had changed their lives, impacted their minds, made them see poetry and literature and life in a new way. . . .He was a wonderful colleague, especially with junior faculty and with his friends working on Yeats. He also made very good friends with our star poet here, Campbell McGrath, and worked with McGrath frequently in the classroom, teaching his poems under the rubric of the ‘American Crisis Poem.’ . . . [H]e was ever so generous, kind, and an excellent scholar. His last article, coming out soon, is on the Crisis poem, from Whitman to McGrath—what a smart article it is.”

Professor Marcus was a bibliophile who collected first editions and an ardent big game fisherman. He had a strong interest in pottery and paintings. He was a man known for his wit, intelligence, and generosity, both of time and money. He was a dedicated teacher who loved words, reading, and the books that he knew almost by heart. He wrote an elegant prose.

He is survived by three children: Mary, the eldest, and his twin sons Leonard and Patrick, as well as by five grandchildren and three great-grandchildren.

Daniel Schwarz, chair;  
Michael J. Colacurcio, Winthrop Wetherbee III
Alan K. McAdams was an active Cornell University faculty member for fifty years, from 1960 until 2010. He joined the Graduate School of Business and Public Administration, now the Samuel Curtis Johnson Graduate school of Management, as an Assistant Professor of Managerial Economics and Finance and was elected Professor Emeritus effective July 1, 2010.

Alan was born in Houston, Texas but spent most of his early years in Newton, Massachusetts with his three brothers as friends and competitors. He is survived by one of his brothers, Kenneth George McAdams. The high point of his adult life was his 57 year marriage to Ann Wheaton Svensson, who survives him. Together they devoted themselves to raising their four sons – Alan, Jr., Jeffrey, Lee, and Kendall - to follow their own passions and interests. Alan is also survived by a much loved granddaughter (Miranda) and grandson (Gideon).

Alan graduated from Yale College in 1952, where he excelled in economics and on the Yale University track team as a sprinter. Alan used his speed in his early years at Cornell in student-faculty
football games. In later years, we all had more common sense (and fewer football injuries). After graduation from Yale, Alan immediately went on active duty in the U.S. Navy and spent four years as an officer on a destroyer, the USS Gatling. Most of his service was in the Mediterranean Sea, but his ship also saw duty in the Pacific region during the Korean War. Alan loved his experiences on the destroyer and told many good sea stories. After discharge from the Navy, he went to the Stanford University Graduate School of Business on the GI Bill, where he earned his MBA in 1958 and his Ph.D. in 1960.

Alan loved teaching, and he taught courses in such disparate areas as quantitative analysis for management, managerial economics, business-government relations, industrial policy and consulting. He stimulated his students to think deeply about complicated issues, and they respected him for that. James C. Morgan, long-time CEO of Applied Materials, frequently mentioned that it was in Alan’s elective economics course that he wrote a paper that developed the concepts he used to build Applied Materials. Mr. Morgan made a major gift to Cornell in 2003 in honor of Professor McAdams. In 1996 and 1998 Alan was awarded the Stephen and Margery Russell Distinguished Teaching Award, which is given by the five-year reunion class to the faculty member who most influenced them. Alan was the first person to receive this high honor twice.

Alan was an enthusiastic person who always had a cause about which he was passionate. His academic interests focused on industrial policy, anti-trust economics, and environmental issues. And for the past few decades, he worked tirelessly to expand fiber-optic service to Tompkins County and the world beyond. We all fondly remember animated discussions with him as he sought to persuade us of the importance of his causes. In these debates, Alan was an effective and determined, but friendly competitor. Retirement did not slow him down. It merely gave him more time to spend on his current interests. When he retired he said, “In retirement I follow my longtime strategy. I sit in my office and wait for the world and its challenges to walk in the door. And they still do.” Computer networks, smart grids and cross-laminated timber consumed his intellectual energy in his later years.
Alan was also actively involved in government, at both the local and federal levels. From September 1, 1971 to August 31, 1972, he was Senior Staff Economist for the President’s Council of Economic Advisors. From 1972 to 1982, he was Chief Economist, Expert Witness, and Consultant for the Anti-Trust Division of the U.S. Department of Justice, where he logged thousands of hours of service on the fabled IBM anti-trust case. He frequently testified before congressional committees. He briefed the chairs of both the Republican and Democratic Technology Caucuses (Ritter and Gephardt) multiple times. In addition to his government work, Alan was a passionate observer of the political scene, and he was a consistent supporter of the underdog.

He received fellowships from the Ford Foundation and Professional Achievement Awards from the IEEE-USA, which awarded him “Life Senior Member of the IEEE” status in 2011. Alan divided his professional energies among all levels of government, non-profit agencies, Cornell University administrative activities, while teaching a full load and publishing numerous monographs and articles.

Alan’s service to Cornell included many years on both the Faculty Council of Representatives (FCR) and the Faculty Senate. He served as chair of the Committee on the Professional and Economic Status of the Faculty and on the FCR Budget Committee and Financial Policies Committee. He was also a member of the Faculty Advisory Board on Information Technology. In addition to his teaching in Cornell’s Johnson School, Alan worked on projects with students from several schools and colleges across Cornell.

Alan was a proud member of the Cornell University community. He was inspired by Ezra Cornell’s motto – any person, any study - and what that implied for Cornell and for him.

*L. Joseph Thomas, Chair; Harold Bierman, Jr.: Robert H. Frank*
Dan E. McCall, noted scholar and Cornell professor emeritus passed away on Sunday, June 17, 2012 at the age of 72. Dan was born in Stockton, California, the son of Roy and Velma (Hooper) McCall on January 14, 1940. The McCalls moved twice during Dan’s boyhood; to Eugene, Oregon a few years after Dan’s birth and to Modesto, California in the summer of 1954. By the time he enrolled in Modesto High that fall, Dan had become something of a West Coast Wunderkind (and adorably looked the part) who competed in dozens of quiz shows and collected dozens of trophies as recitalist and public speaker (including in ’56 the National Speech Tournament Championship). One of his most devoted students and lifelong friends described the Dan he first met, lovingly and kiddingly, as “a whiz kid fraternity boy from California.”

When Dan McCall formally retired from teaching in 2005 he had served on the faculty as professor of English and American Studies for forty years. Thanks not only to his meticulous scholarship and his sensitivity as a practicing (and successful) novelist but not least to his marvelous performative skills, Dan excelled alike as a mentor to the Happy Few in graduate writing seminars and a spellbinding lecturer to the 200-odd undergrads who flocked to his courses in the American novel.

Dan must have inherited a large part of his gift for mimicry from his father: a Professor of Speech in Stockton before he was chosen to head a junior college in Palm Desert, Roy McCall published a widely used textbook, Fundamentals of Speech, which appeared four years after Dan did and with which Dan grew up. And in a perhaps unacknowledged tribute to Father McCall, Dan persistently singled out as his favorite book by a Cornellian (well: two Corneliants) Strunk and White’s 1918 classic Elements of Style—while Scott Elledge’s White biography took pride of place as Dan’s best loved book by a colleague in the Department.

From 1959 to 1962 Dan attended Stanford as an English major. Dan’s love for American literature almost certainly dates from his years at Stanford. Among his teachers the god of Dan’s idolatry was the saturnine and brumal poet-critic Yvor Winters, Dan’s Bible.
Winters’s daunting *In Defense of Reason*, a book from which Dan quoted pages on end in a flawless imitation of Winters’s sullen and uncompromising voice. By then Dan had already revealed himself to be a thoroughly gifted writer of fiction. A former teacher of his—he and Dan were to become long-time colleagues and friends at Cornell—recalls a writing workshop of his at Harvard which Dan attended in the summer of 1959:

> From the first, weeks before he read from his fiction, Dan stood out from among his mates as class pet, class mascot, a wonderfully friendly, funny counterfeit naïve Sunday child. During our two final class meetings he read hilarious half-hour extracts from a work in progress about a teenage public speaking contestant and quiz kid, i.e., about Dan, more or less. The audition had the class in stitches; the second one provoked an ovation—in my 50-odd years in the trade the only such Happening.

Dan graduated *summa cum laude* in 1962. He received his M.A. from Columbia the year following, his Ph.D. in 1966, the year he entered on his long career at Cornell. He was promoted to assistant professor in 1967, associate professor in 1972, professor in 1978.

In the summer of 1965, as Danforth Fellow at Columbia, Dan, together with his young wife, had been invited to teach English at Langston Hughes University, the only historically black college in Oklahoma. Dan’s interest in black literature was to be reflected in his first scholarly work and his first novel, both published in the spring of 1969: *The Example of Richard Wright*, a pioneering study of Wright which got itself on the *Times* list of ten best non-fiction books, and *The Man Says Yes*, a fictionalized account of the summer of Langston and Dan’s friendship with one of his eminent resident colleagues, the modernist poet and educator Melvin B. Tolson (the Henri Prudhomme of Dan’s book and its dedicatee). What needs to be remembered here (and after 35 years is all too easily forgotten) is the fact that Dan was the first to teach a course in black literature at Cornell.

If *The Man Says Yes* remains Dan’s most fugitive novel, his next, *Jack the Bear* (1974), remains his most popular: a funny, touching, beautifully “felt” narrative about (and by) an adolescent whiz in an Oakland-based dysfunctional family. The book has been translated into more than a dozen languages as well as into a middling-good film.

*Jack* was followed by half a dozen novels, a number of them reflecting Dan’s specialty as Americanist, notably *Beecher* (1979), a concisely exhaustive, minutely researched novel about the adultery trial of Henry Ward Beecher, the pillar of the American clergy; more recently, what is perhaps Dan’s finest novel, *Messenger Bird* (1993), which records the trials of a young surgeon on a Native American reservation. Between *Beecher* and *Messenger Bird* Dan produced a much loved novel, *Triphammer* (1990). The book contains one of the funniest scenes in the McCall repertoire, in which the two ill-matched lovers, a sergeant on the Ithaca police force and his young woman-professor friend, throw their disastrous first joint dinner party. Dan happens to be a master at exploring professional specifics, whether he deals with physicians or lawyers or small-town policemen. One of Dan’s colleagues recalls a student of Dan’s, the daughter of a distinguished cardiologist and herself a top notch fiction writer, leafing through *Messenger Bird* and wondering out loud, “How does he know all that?”
Though Dan had already published a number of highly crafted scholarly pieces in his apprentice years as Cornell instructor—notably studies of Hawthorne, Conrad, and Fitzgerald -- the bulk of his book-length work appeared in the decade before his retirement: his lively1997 edition of Henry James’s 1879 study Hawthorne (the only title in the “English Men of Letters” series to devote itself to an American writer and per Edmund Wilson one of the best books on Hawthorne). James on Hawthorne naturally enough provoked two years later a book on Hawthorne and James: Citizens of Somewhere Else—the title is taken from Hawthorne’s Preface to The Scarlet Letter and Dan uses it as a springboard to examine the exemplary American character of two writers who were or regarded themselves as quintessential expatriates. Dan’s last work, his 2002 Norton edition of Melville’s Short Novels with the famous Killer B’s (Billy, Benito, Bartleby) went into ten printings in its first two years. Somewhat earlier than any of these: Dan’s splendid, uncharacteristically austere study The Silence of Barnaby (1989), which Dan’s young Columbia colleague Andrew Delbanco, in a tribute Dan cherished above all others, called “the single most sensitive response to Melville’s genius [in the past twenty years].”

At Dan’s retirement party one of the speakers remarked that she had never known anybody so passionate about literature as Dan was. As has been suggested, Dan’s eye and ear for great prose and his elocutionary gifts combined to make him a marvelous teacher of the classic passages in the American novel, what Harold Bloom calls the “secularized epiphanies” in a given text: the final meeting of Isabel Archer and Casper Goodwood; the famous scene in which Strether discovers Chad Newsome’s relation with Madame de Vionnet; Huck’s mortifying self-reproaches. It can be seen from this that Dan’s pedagogy and his whole attitude to teaching were as impeccably conservative as his politics up front were impeccably left of center. Dan himself had been brought up in the school of close reading associated with Cleanth Brooks and Robert Penn Warren, and even though he knew this method to be unfashionable, he stuck to it as the only method congenial and indeed available to him.

As a matter of fact, Dan hated—really hated—the humorlessness that he felt had come to infiltrate American universities—his university, the only one in which (visiting stints apart) he taught. In a long interview conducted at the time Citizens of Somewhere Else appeared, Dan aired his distaste for writer-teachers “whose political agenda controlled everything,” who ignored the most obtrusive “facts” of a given text in favor of far-out political proprieties and modish irrelevancies. Perhaps in an effort to compensate for the critical overkill to the left and the right of him Dan brought to his own texts an often conversational, chatty, even slangy vocabulary, with the result that Dan the novelist often peeks out of his impish homework. Put another way, Dan refused to recognize any difference between the craft of writing and the craft of teaching. “My voice on the page is my voice in the classroom.” Given his penchant for writerly self-indulgence, it’s not surprising that Dan fell into the other extreme of unloading a dozen uncritical interrupters and raw expletives and coy rhetorical questions on the typescripts of his academic texts—which his friendly colleagues had then to expunge. Nor is it surprising that the reviewer in Publisher’s Weekly lavished praise on Citizens of Somewhere Else precisely for providing the reader with “a salutary balance between traditional and innovative approaches to literature.” And the passage Dan underlined for the benefit of his friends: “McCall’s splendid new book . . . demonstrates a passion for literature, not politics.”
Among Dan’s last public performances at Cornell two or three may suggest a certain coherence in Dan’s universe. On the thirtieth anniversary of the Straight takeover, Dan turned up as one of two speakers by the Cornell faculty on a symposium, largely attended by undergraduates, about the 1969 student uprising. In addressing some embattled incidents which occurred during the feverish days following the “siege,” Dan took the most nearly “incorrect” political line imaginable. And about a year before he left us Dan gave a hilarious talk on Mark Twain to an audience mostly of senior citizens at Kendal in Ithaca—specifically on Mark’s irreverence toward the Boston brahmins. A subject tailor-made for Dan. Between the two performances a lecture to undergrads sponsored by the Cornell Libraries on the textual sins visited on Huck Finn and his maker by the partisans of an admittedly blinkered rectitude.

At the time of his death Dan left some eight or nine unfinished or near-finished books. These include a massive study of Hemingway and Fitzgerald, a reprise of the 1969 campus tumult, a book on Jokes, and a much-praised memoir, Boy on a Unicycle.

Dan is survived by his beloved son Steven and Steven’s wife Meg of San Luis Obispo, his nine-year-old grandson Evan and his seven-year-old granddaughter Ava, his nephews Michael and James McCall, as well as his former wife Dorothy Kaufmann and his longtime companion Betty Friedlander. A younger brother, David, pre-deceased Dan; a novel-fragment about him, Sing, David! survives the two brothers.

Edgar Rosenberg, Chairperson; Roger Gilbert, Lamar Herrin
Robert E. McDowell, Jr.

June 27, 1921 – November 25, 2010

Robert E. (Bob) McDowell was born and grew up on his family’s farm in what was at that time a rural area near Charlotte, North Carolina. In later years he would tell stories of a slightly older youth, Billy Graham, from a neighboring farm, who would ride by his home on a mule with a strange old hat perched on his head. It was never clear just how well acquainted they were or to what extent they may have influenced each other, but each was destined in his own way to have an international impact. Following graduation from the local high school, Bob went on to North Carolina State College, where he earned the B.S. degree in animal science in 1942. His next four years were spent in the Marine Corps, where he rose to the rank of Captain. He commanded a Marine amphibious tank company on Guadalcanal, Saipan, Iwo Jima and Okinawa and was awarded the Bronze star for valor. The unit he commanded received 5 presidential citations, two with gold leaf clusters. For a number of years after the war he continued his interest in military service by participating in the Marine Reserve, from which he retired in 1971 as a Colonel. His work in the reserve won him special recognition for meritorious service at least three times.

Following his active service during the war and brief stints as instructor in the Veterans Administration vocational agriculture program in Charlotte, North Carolina and as a USDA agent in Columbia, South Carolina, McDowell was employed from 1947-49 as dairy husbandman at the SDA Dairy Cattle Research Branch in Beltsville, MD. He took advantage of the opportunity while there to earn the MS degree in animal physiology at the University of Maryland. Thereafter he went on to earn a Ph.D. degree (1955) in animal science at the same institution and to do postdoctoral work in environmental physiology at Johns Hopkins. His subsequent research at USDA (1959-66), where he served in the Dairy Cattle Research Branch as supervisory dairy husbandman and later as program director of genetic and adaptability investigations, was directed primarily at (a) the development and refinement of techniques to quantify certain physiological responses, including sweating, in cattle, (b) physiological conditions associated with the adaptation of cattle to hot climates including the interaction of nutrition, genetics, and physical conformation and (c) the influence of crossbreeding on efficiency of milk production and reproduction. His findings suggested that many earlier concepts of genetic, anatomical and physiological factors thought important in the adaptation of
cattle to hot climates were either erroneous or relatively unimportant and that nutrition and management tools might be employed to advantage.

McDowell, after spending a leave at Cornell in 1966, was recruited in 1967 to fill a position in the Department of Animal Science with emphasis on teaching and research related to international problems in animal production under tropical conditions. Thus he became one of the first of a group of “international agriculture” professors hired in the 1960s by the College of Agriculture to enhance the global dimension of its teaching, research and outreach programs. For some 20 years thereafter he was a pioneering leader and advocate of international efforts in animal science, often reminding his sometimes doubting colleagues in the plant and social sciences of the importance and role of animals in world agriculture. He collaborated with others in developing and teaching a series of courses designed to expose students, both domestic and foreign, to the problems associated with the cultivation of plants and the breeding and management of animals under tropical conditions. He was heavily involved in developing and sponsoring a multidisciplinary course (International Agriculture and Rural Development 602) which included a between-semester field trip to a tropical or subtropical area (usually Mexico or other Latin American country) to give students first-hand observation of and experience with such problems.

Bob’s research and outreach activities took him to many other countries, especially in Latin America and Africa, but also, on occasion, India, Afghanistan, Iran, Iraq, Pakistan, Saudi Arabia, Taiwan, Thailand, Sri Lanka, Philippines and others. He enjoyed his interactions with students, faculty and visitors. His expertise and personality enabled him to develop many friendships and to forge productive research alliances and linkages both in the US and abroad. At one time he was involved in such cooperative efforts with some 15 institutions in 11 countries. Recognizing that he was not an expert in all relevant disciplines, he was a master at getting other faculty involved with his graduate students to tackle problems that required their expertise and guidance. Often he would arrange for students to collect their thesis data in their home or other appropriate country. Bob’s cooperative research and demonstration programs frequently involved evaluation of performance of indigenous breeds of cattle, buffalo, goats or sheep in comparison with European breeds or crossbreds under tropical conditions. In the context of such studies, modern dairy record keeping systems and other management tools were introduced in several countries and assistance was given in data analysis and interpretation. Other studies evaluated the constraints of traditional farming systems.

Throughout his career, Bob pursued his work with the fervor and self-discipline he had no doubt perfected as a Marine officer. His rigorous enforcement of discipline and attention to detail, including schedules during field trips, were not at the time always appreciated by sleepy students and occasionally resulted in humorous comments on their part. Their respect for Bob, who was truly a unique individual and who could easily roll with the punches, however, was strong and unwavering. He was always an early riser, usually at his desk in the morning before anyone else. Research papers and committee reports were always promptly submitted. He was a good academic citizen, willingly taking his share of committee assignments and volunteer responsibilities.
McDowell was the author of a widely used book, “Improvement of Livestock in Warm Climates,” 11 chapters in books, and numerous refereed and technical papers, bulletins and other publications. He was the recipient of the USDA Superior Service award (1962), the American Society of Animal Science International Animal Agriculture award (1979), was elected a Fellow of the League for International Food Education (1984) and received the Puerto Rico Agriculture Service award (1986).

Bob held honorary/courtesy staff appointments in five or more universities in foreign countries where he was doing collaborative research and participated in numerous national and international committee assignments related to tropical agriculture. He was frequently called upon for special assignments or consultancies with organizations such as World Bank, FAO, US AID, Peace Corps, USDA and Rockefeller Foundation. From 1979-85 he served as chairman of the board of trustees of the International Livestock Centre for Africa (ILCA).

Following his retirement from Cornell in 1986, as professor emeritus, Bob and his wife moved to Raleigh, North Carolina, where he became affiliated once more with his alma mater, North Carolina State University and, for a number of years, assisted with their international agriculture program. He was predeceased by his youngest daughter, Jane, in 1963 and by his wife, Dorothy Gill in 1991. He is survived by two daughters, Jean Burke of Tarrytown, NY and Ann Hickey of Asheville, NC, by his son, Robert G. McDowell of Portsmouth, NH and by a sister, Jane Bullock of Raleigh, NC.

J. Murray Elliot, Chairperson; Douglas E. Hogue, H. David Thurston
The School of Civil and Environmental Engineering lost one of its most distinguished faculty members when Professor Emeritus William “Bill” McGuire died at the age of 92. In 1994, he had been elected to the National Academy of Engineering and was also named a Distinguished Member (formerly known as Honorary Member) of the American Society of Civil Engineers.

Professor McGuire was born in Staten Island, NY, the only child of Edward J. McGuire, a transit police officer, and Phoebe McGuire, nee Sellman. After receiving a B.S.C.E. degree from Bucknell University in 1942, he served in the Navy in the Pacific as an aircraft maintenance officer for dive bombers on the aircraft carrier U.S.S. Franklin. Those who came to know Bill later in his life realized that his intense experiences of three years in the wartime Navy remained strongly with him, and in 2008, he was finally moved to write his recollections of his Navy service.

The carrier Franklin was commissioned in early 1944 and joined the Third Fleet for successive operations in the Marianas (July and August), the Western Carolines (September) and Leyte Gulf (October) and suffered a kamikaze attack off Leyte Island on October 30, 1944, damaging the flight deck and aft elevator. After
repairs at Puget Sound Navy Yard and the addition of a replacement air group in Alameda, the Franklin joined the Fifth Fleet for operations just 50 miles off the coast of Japan. There a bomber strike on March 19, 1945, while Bill was on the carrier deck helping to launch aircraft, caused widespread fires and explosions from the armed and fueled planes on both the flight and hangar decks, resulting in 800 fatalities and 500 wounded. As for Bill’s role on that fateful morning, the citation of Lieutenant McGuire states, in part: "... in the face of continuing explosions and raging fires, he led a valiant group fighting the fires until forced by flames and smoke to go overboard." In his characteristically modest way, Bill refers to the citation in his recollections of service as "... perhaps exaggerated slightly in that [it] did not mention that we weren't successful."

While the carrier itself remained afloat and was towed clear of Japan, Bill and 480 other overboard survivors were picked up by the destroyer U.S.S. Hunt. All were returned to the ship at the naval base in Ulithi. The crippled carrier ultimately returned under restored power to Brooklyn Navy Yard as the war approached its end. In the course of less than a year of action, the Franklin had sustained the most casualties (a total of 924 deaths) and suffered the greatest damage of any US ship that survived the war.

After his discharge from active Navy duty in December 1945, Bill earned a M.C.E. degree in structural engineering at Cornell, while having his first opportunities to serve as an instructor responsible for undergraduate courses. Upon his graduation in 1947, he was engaged by Jackson & Moreland Engineers, Boston, as a structural designer of power plants and atomic energy projects. In 1949, he accepted George Winter’s invitation to join the structures faculty in CE at Cornell. He was promoted to Associate Professor in 1952, to Professor in 1960, served as Director of the School in 1966-68, and was named Professor Emeritus after forty years of service in 1989. Among the most important of his committee activities in the College of Engineering was his service on the Policy Committee (1963-66 and 1975-78), including as Chair during the critical year 1965 when the College was transforming its undergraduate degree programs from five years to four. In the same year, he chaired the Committee
on the Reorganization of the School of Civil Engineering (prior to its change of name to CEE). Professor McGuire was (and remained) a strong advocate of the idea that engineers needed five years to complete their education, and thus he played a leadership role in creating the one-year design-oriented Master of Engineering degree. As a replacement of the fifth year for Cornell engineering students, this professional master’s degree program has been widely imitated at other institutions; and the civil engineering profession now explicitly endorses the five-year concept. Despite his accomplishments in these significant administrative roles that helped lead to his appointment as Director of the School in 1966, he decided to resign from that position after only two years, and he “escaped” to an extended leave of absence to spend two years (1968-70) as a visiting faculty member at the Asian Institute of Technology (AIT, Bangkok). His time in Thailand and his personal and professional visits during that period to several other Asia-Pacific countries constituted another memorable life experience, leading to several long-lasting international friendships. Some of these were further enhanced by subsequent sabbatical leaves at the University of Canterbury, the University of Western Australia, the University of Tokyo, the University of Liege, and the Strathclyde University.

Professor McGuire’s professional interests were primarily in the area of steel structures, and his early research on such topics as connections, welding and fatigue culminated in his classic textbook, the monumental and influential Steel Structures (1968). This publication, as well as Bill’s teaching over the years, notably balanced the practical engineering of real-world problems with emphasis on the fundamental principles and theory that lie behind structural behavior and design. This balance also affected his choice of research problems, and it clearly reflected his experience as a designer that he had accumulated not only in consulting but also in summers and sabbatical leaves with engineering firms early in his academic career. Professor McGuire was one of the last engineering faculty members to not hold a Ph.D., but his experience served in lieu of that certification. However, in his first twenty-five years on the Cornell faculty, he did not chair the Special Committee of a single Ph.D. student.
Starting in the 1970s, while his interests remained primarily related to steel structures, they took a significantly different turn and evolved to the progressive collapse of structures, nonlinear analysis and design, and nonlinear torsional-flexural behavior – all connected to innovations in the application of interactive computer graphics techniques to computational structural analysis and design. During this second phase of his academic career through the 70s and 80s, he supervised a number of Ph.D. and M.S. theses, and his students from that era have distinguished themselves by filling a number of faculty positions, deanships, and one presidency at leading institutions or by undertaking successful careers in structural design. In addition to authoring – or co-authoring with his students and colleagues – numerous papers, Professor McGuire was the senior author of two editions of the widely used textbook, *Matrix Structural Analysis* (1979 with R.H. Gallagher; and 2000 with R.H. Gallagher and R.D. Ziemian).

Professor McGuire advocated that better designs would always come from a better understanding of structural behavior. To this end, it was Bill's ambition, and that of his co-workers and Ph.D. students, to model the behavior of such structures under load as realistically and comprehensively as possible with computational models. Professor McGuire led a twenty-year effort that eventually resulted in a revised appendix to the Specification of the American Institute of Steel Construction (AISC) and an opportunity for engineers to use this approach. On the education front, Professor McGuire led efforts to make advanced nonlinear analysis accessible to students and professional engineers through interactive computer programs, including the MASTAN2 software (www.mastan2.com) widely used in structural engineering courses on analysis and design in connection with the second edition of *Matrix Structural Analysis*.

Professor McGuire’s teaching, mentoring, research, writing and consulting earned him wide respect from his students, faculty colleagues and those in the wider structural engineering profession. Starting with the publication of *Steel Structures* in 1968, he came to be recognized as a visionary due to the forward-looking nature of his research pursuits that created approaches in anticipation of later
Professor McGuire was a frequent invited keynote speaker at several national and international conferences and seminars delivered at numerous American and foreign universities. Professor McGuire was invited to serve on several national committees related to the design specifications for steel structures, including the ASCE A7 Task Committee on General Provisions (1975-90), the American Iron and Steel Institute Subcommittee on Welding of Cold Formed Steel (1975-85), and the American Institute of Steel Construction Specification Committee (1985-91). He was twice a winner of the annual ASCE Norman Medal for co-authoring the paper that makes a definitive contribution to engineering (with G.P. Fisher in 1962; and with R.D. Ziemian and G.G. Deierlein in 1994). Among his other recognitions were the ASCE's Shortridge Hardesty Award in 1992, the AISC’s 1992 T.R. Higgins Lectureship and 2000 Geerhard Haaijer Award, and the Structural Stability Research Council’s 2005 LynnS. Beedle Award. Within Cornell, the undergraduate Chapter of Chi Epsilon selected him as Professor of the Year in 1979.

Professor McGuire's consulting as a licensed Professional Engineer included the design of special structures and the investigation of a number of structural failures, including such notables as the Hyatt Regency walkway collapse in Kansas City (for NBS/NIST) and the L’Ambiance Plaza collapse in Bridgeport, Connecticut (for OSHA). Bill was one of the very few engineers who were selected and served as independent reviewers of FEMA’s post 9/11 report entitled World Trade Center Building Performance Study: Data Collection, Preliminary Observations, and Recommendations. He had a longtime involvement on behalf of Cornell in the planning, design, upgrading, and maintenance of the large radio telescope structure of the National Astronomy and Ionosphere Center, Arecibo, Puerto Rico; and more than once, he was intimately involved in its rescue from serious structural aging problems. In the early 1960s, he was also co-designer (with the retired Dean of the College of Engineering, Solomon Cady Hollister) of the “new” Fall Creek Suspension Bridge on the Cornell campus.

His colleagues remember Bill as a true gentleman, an avid reader, especially of non-fiction, and a wonderful conversationalist who...
invoked history, travel, politics, and current news in addition to what he termed his “sea stories,” much of which had nothing to do with the Navy. In the decades before his death, for the Cornell CEE faculty, he was the sole source of tales of when the School inhabited Lincoln Hall before its move to Hollister Hall in 1959. For many alumni and colleagues, Professor McGuire has a significant place in their fond memories of Cornell.

While on active duty in the Navy, Bill courted Barbara Weld, the daughter of Doctor Stanley B. and S. Frances Weld of Hartford, CT, and they married on February 5, 1944 while he was on leave. During the remainder of the war, their time together was fragmented by Bill’s sea duty, but Barbara managed to catch up with him for short periods on shore in Virginia Beach, Seattle, San Francisco, New York and Jacksonville. Over their years at Cornell, Barbara and Bill were noted for their kind hospitality to colleagues, friends, visitors and students in their home in Ithaca. They traveled extensively throughout the world. The couple celebrated their 65th anniversary just months before she died in 2009. They are survived by two sons, Robert W. of Ithaca, NY and Thomas R. of Tucson, AZ; two granddaughters, Christina McGuire Adelman of West Baldwin, ME and Marketa McGuire Elsner of Lakewood, CO; and two great-grandsons, Cash Thomas Adelman and Elias Weld Elsner.

John F. Abel, Chairperson; Wilfried H. Brutsaert, Anthony R. Ingraffea, Ronald D. Ziemian, With input from Gregory G. Deierlein and Steven J. Fenves
Paul R. McIsaac, born in Brooklyn, New York, died at his home in Ithaca, New York of pulmonary arrest at age 84. He had been a member of the EE/ECE faculty for 41 years.

After returning from two years in the US Navy, Paul received the B.E.E. degree from Cornell University in 1949 and the M.S.E. and Ph.D. degrees from the University of Michigan in 1950 and 1954, respectively, all in electrical engineering. During the 1951 academic year, he was a Rotary Foundation Fellow at the University of Leeds, England. Following completion of his doctoral study Paul joined the Microwave Tube Division of the Sperry Gyroscope Company in Great Neck, New York as a Research Engineer. In collaboration with Professor Conrad Dalman, at the time a Senior Research Engineer at Sperry, Paul contributed to the development of state-of-the-art microwave tubes used in high-power radar systems. Conrad joined the EE/ECE faculty in July 1956 when the School began to emphasize graduate-level research. Citing Paul’s impressive five-year research record at Sperry, Conrad suggested that Paul would be an excellent faculty addition to the Microwave Tube Research Group. The Faculty viewed Conrad’s recommendations favorably and many members recalled Paul’s outstanding performance as an undergraduate. With general faculty approval, Paul was appointed as an Associate Professor of Electrical Engineering in 1959. He was promoted to full Professor in 1965, and became Professor Emeritus on July 1, 2000.

Paul's career at Cornell was devoted to teaching, research, and service to the EE School, the College of Engineering, and the University. He helped to develop the junior-year-level courses, EE 303 and EE 304, Electromagnetic Fields and Waves I and II that he taught numerous times during regular academic terms. In addition, he taught the first of these courses to engineering cooperative students during 30 summer sessions. On a regular basis, he also taught the sophomore-year-level course, EE 210, Introduction to Circuits. He taught a graduate course, EE 583, Electrodynamics, with the goal of giving first-year graduate students a thorough understanding of the fundamentals of classical Electrodynamics and the Electrodynamics of continuous media, followed by a graduate course, EE 584, Microwave Theory, with the goal of applying modal theory to waveguides, cavities and microwave junctions. His research was centered on electromagnetic theory and the analysis of structures for application to microwave, millimeter, and optical devices and systems. The objective of this research was to explore the properties of general classes of structures using as a basis the symmetry operations (both spatial and non-spatial) belonging to the structure and its constituent media. These symmetry operations determine, to a large extent, the electromagnetic characteristics of a structure. Uniform and periodic waveguides and transmission systems and multimode junctions and coupling systems
are included. Over the years Paul directed the research of many graduate students in these and related fields.

Paul was highly regarded by his students as an excellent and dedicated Instructor. In attempting to explain some of the more esoteric concepts in Maxwell's Equations, Paul found that his knowledge of modern art provided him with useful classroom analogies. For example, one can draw an analogy between the photons that make up an electromagnetic signal and the myriad dots of color used in neo-impressionist paintings (e.g., by Seurat), or to the blobs of color used by the abstract expressionist Rothko. In the former case, adding or subtracting a few dots does not appreciably alter the painting; this is analogous to classical Electrodynamics, which assumes vast numbers of photons (valid through the millimeter range). In the latter case, adding or subtracting a single blob creates a new painting; this is analogous to the realm where few photons are involved and quantum Electrodynamics must be used (at light frequencies).

Paul served two separate terms as Coordinator of Graduate Studies in the EE School from 1962 to 1965 and from 1973 to 1975 before becoming Associate Dean in charge of research and graduate education for the College of Engineering, a position he held from 1975 to 1980. From 1984 to 1987 and again from 1992 to 1995 Paul was the Coordinator of Graduate Studies in the School, the only Cornell EE Professor who had been in that office four times. From 1965 to 1966 he was a Visiting Professor at Chalmers University of Technology in Göteborg, Sweden, and from 1987 to 1988 he spent another sabbatical at the Royal Institute of Technology in Stockholm. In between these yearlong sojourns, Paul was invited to give doctoral exams to several of his Chalmers students, a signal honor. Over the years he consulted with the Westinghouse Electric Corporation in Elmira, New York (1959-65), the Cornell Aeronautical Laboratory in Buffalo, New York (1960-63), the Sperry Gyroscope Company in Great Neck, New York (1961-65), and the Hampton Institute in Hampton, Virginia (1968-70). Paul was a member of the IEEE, Sigma Xi, and the American Association for the Advancement of Science. He authored or co-authored over 40 refereed journal and conference papers.

Paul was known to colleagues and associates as a quiet thoughtful man. But he had an innate sense of humor that was well demonstrated by his accounts of undergraduate days when he was earning part of his college expenses by working as a part-time engineer and control room operator for the Cornell radio station WHCU. Since he possessed a calm clear bass voice, well suited for radio announcing, one of his duties was to introduce the early Sunday morning broadcasts. Since the daily live broadcast of the Cornell Agricultural Farm and Home Hour coincided with the Columbia Broadcasting System (CBS) soap operas, another one of his duties was to transcribe the soaps for later rebroadcast. Paul said he learned a lot more than he really wanted to know about "The Adventures of Helen Trent" while those transcriptions were in progress. Paul also recalled that the Farm and Home Hour always started with a live broadcast of the Cornell Library-tower chimes. This feature was accomplished by means of a live microphone in the hands of an assistant
operator who was usually stationed near a public telephone booth adjacent to the
tower. In addition to the chimes concert, listeners were occasionally treated to some
interesting conversations emanating from that telephone booth.
During the five years that Paul worked for Sperry he played the French horn with the
Huntington Symphony Orchestra, an amateur group of local engineers and other
professionals who were also competent musicians. Paul said proudly that the
orchestra produced some fine concerts under the direction of Thomas Pickering, the
inventor of the Pickering loudspeaker. As often happens, Paul had not played for
many years, and, in fact, gave his horn to his son. Paul and his wife, Lou, were
patrons of the arts, enjoyed Bailey Hall concerts, and were frequent visitors to
museums in this country and abroad. In addition to a fondness for classical music,
Paul admitted listening to jazz occasionally, providing it was of the pre-1950s
variety. They were both fond of theater and often visited the Stratford Summer
Festival in Ontario, Canada. Paul and Lou also enjoyed art appreciation as a pastime,
with interests that ranged from primitive to modern art.

Paul and Lou Heldenbrand, married in September 1949, in Royersford,
Pennsylvania, spent the majority of their 61 years of their life together principally in
Ithaca. Paul is survived by his wife Lou, of Ithaca, New York; his daughter, Wendy
L. McIsaac and her husband, Harvey Sheldon, of London, England; his daughter,
Karen Jo McIsaac and her husband Oscar Torres, of Fairfax, Virginia; his daughter,
Kathleen A. McIsaac, of Ithaca, New York; his son, Hugh P. McIsaac and his wife
Nancy, of Denver, Colorado; and eight grandchildren.

It was as a teacher that Paul made his greatest contribution to the School. He was an
excellent and dedicated Instructor, highly regarded by all his students and admired
by his colleagues. Over all, to paraphrase President James A. Garfield, also at one
time a college President: a log with Paul McIsaac on one end and a student on the
other would be the foundation of a great University.

Simpson Linke, Chairperson; G. Conrad Dalman, Clifford R. Pollock, Charles E. Seyler
Jerrold (Jerry) Meinwald died in Ithaca, New York, on April 23, 2018 of cancer. He was the Goldwin Smith Professor Emeritus of Chemistry & Chemical Biology at Cornell. A member of the American Academy of Arts & Sciences, the U.S. National Academy of Sciences and the American Philosophical Society, Jerry made numerous seminal contributions to organic chemistry spanning physical and mechanistic organic chemistry to synthetic and analytical techniques, but he was perhaps best known as one of the two founders (along with the late Thomas Eisner) of the modern discipline of chemical ecology. Jerry’s research over the past sixty years had a profound impact on that field. By elucidating the structures and functions of messenger molecules, Jerry Meinwald brought understanding at the molecular level to the workings of nature.

Born in New York City to Sophie and Herman Meinwald, Jerry developed a passion for chemistry as a boy after reading a biochemistry textbook on the beach together with his good friend, Michael Cava. Soon the two were producing homemade fireworks displays for their neighbors, and began performing experiments in a home laboratory, acquiring the necessary chemicals from drug stores and supply houses. The instructions for their syntheses were copied by hand from books and journals at the New York Public Library. Jerry graduated from Stuyvesant High School, and briefly attended Brooklyn College and Queens College. During 1945-1946 he served as an electronics technician in the US Navy, then earned a Ph.B. (1947) and B.S. (1948) in Chemistry at the University of Chicago. At Harvard University he completed M.A. (1950) and Ph.D. (1952) degrees, working with R.B. Woodward. Jerry joined the Cornell faculty in 1952 and spent most of his subsequent career in Ithaca. He was named Goldwin Smith Professor of Chemistry (1980-2005) and held the Andrew Mellon Foundation Professorship (1993-95).

It is difficult to overstate the impact of Meinwald’s work in the field of chemical ecology, since as one of its earliest practitioners, he set the standards of excellence by which others in the field are judged. By focusing on biotic interactions and their mediating molecules—on the signals of courtship, defense, and parental maintenance—Jerry (along with the late Tom Eisner) established beyond any doubt that chemical signals contribute to almost any type of communication in nature. Through discoveries that have become landmarks, he has elucidated the intricacies of countless natural interactions, both mutualistic and antagonistic, involving insects and plants, the dominant life forms on land. Acutely aware of the long-range implications of species loss, he and Tom Eisner argued
persuasively, through their extensive publications and lectures worldwide, for the preservation of nature and the chemical capital it provides.

Jerry’s first major plant-related chemical discovery was to establish the structure of nepetalactone, the component in “catnip” that attracts and intrigue cats. Returning to plants again years later in a spectacular study of the chemistry of lepidopteran courtship, Jerry showed how female moths used compounds from a plant dietary source to screen for the fittest male sexual partners.

In essence, the female tiger moth, *Utetheisa ornatrix*, emits a mixture of C_{18} trienes and tetaenes that attracts males from a distance. A courting male then signals the female at close range with a pheromone biosynthesized from a pyrrolizidine alkaloid that the male has sequestered from his plant diet.

Females avoid mating with males that don’t provide this chemical cue. However, males emanating the appropriate alkaloid-derived perfume are accepted and allowed to transmit to the female a large spermatophore (up to 10% of their body weight!) containing not only sperm, but also a heavy dose of pyrrolizidine alkaloid, which is toxic to most animals, but not *Utetheisa ornatrix*. Some of the alkaloid is retained by the female and some is incorporated into her fertilized eggs, rendering the female and her eggs unpalatable to predators and parasites.

Not only did Jerry’s research elucidate for the first time the structure of a male-produced pheromone, but it also revealed the pheromone’s origin from a plant alkaloid, and uncovered its role in guiding female sexual selection. This study constitutes the first example of sexual selection based on a chemical criterion for male “fitness.”

Jerry Meinwald’s work was widely recognized across the world. He was elected to the National Academy of Sciences (1969), the American Academy of Arts and Sciences (1970, serving as secretary from 2005-2016), and the American Philosophical Society (1987). He was an Alfred P. Sloan Foundation Fellow (1958-62) and twice a John Simon Guggenheim Foundation Fellow (1960-61 and 1976-77). He received an honorary Ph.D. from the University of Göteborg (1989). His awards include the Tyler Prize in Environmental Achievement (1990), the Heyrovsky Medal of the Academy of Sciences of the Czech Republic (1996), the American Chemical Society's Roger Adams Award in Organic Chemistry (2005), the Grand Prix de la Fondation de la Maison de la Chimie (2006), the Benjamin Franklin Medal in Chemistry (2013), and the Nakanishi Award of the Chemical Society of Japan (2014). In 2014, President Obama presented him the 2012 National Medal of Science.

During his long career at Cornell, Jerry trained generations of chemists, including many leading researchers in both organic chemistry and chemical ecology. He published over 400 journal articles with some 200 collaborators. In the early 1970s, he was a founding Research Director of the International Center for Insect Physiology and Ecology headquartered in Nairobi, Kenya.

Examples of organic chemistry playing an unexpectedly important role in the world of nature made intriguing stories for a general lecture audience. With his extraordinary ability to excite and educate diverse audiences about chemistry, Jerry was always in demand as a lecturer. Jerry presented more invited general talks (five) at the American Chemical Society’s National Organic Symposia than any other scientist.

Jerry Meinwald was also a superbly gifted teacher, and taught Cornell’s legendary “Introduction to Organic Chemistry” (Chem 3570/3580) for many years. He went on to create the highly innovative course, “The Language of Chemistry,” which helped many hundreds of nonscientist Cornell
undergraduates meet their science requirement while learning a significant amount of contemporary organic chemistry. Educating nonscientists was important to Jerry; he strove to boost scientific literacy among non-science majors at the college and university level. In 2010 he co-headed an American Academy of Arts and Sciences study of “Science in the Liberal Arts Curriculum,” which was aimed at examining what science requirements our institutions of higher learning have established for their non-science majors, why they have these requirements, whether those requirements actually produced the desired results, and whether current curricula might be modernized and strengthened to produce a more science-literate citizenry.

Jerry was a talented flutist. He studied flute with Arthur Lora, James Pappoutsakis, and Marcel Moyse. Throughout his life he enjoyed playing music with (and for) colleagues, friends, and family members, often with his wife Charlotte Greenspan at the keyboard. And there was hardly a scientific meeting he organized that did not feature a live music component, often with himself as one of the contributors. One of his friends recounts traveling with him when a flight to a chemical meeting was (typically) delayed. He sat down in the midst of an impatient crowd, took out his flute and started playing, to the delight of the people around him. He and his wife were present at, it seems, every Cornell musical event; Jerry truly loved music. Another thing that gave pleasure to Jerry and the people around him was food. He was an excellent cook. The dinner parties he prepared are warmly remembered by the guests who attended them. He was also sought out by friends and colleagues for recommendations for restaurants in cities around the world.

Meinwald is survived by Charlotte Greenspan, his wife of 37 years; their daughter, Julia; and Constance and Pamela, daughters of his first marriage. He is also survived by his first wife, Yvonne Chu, who was his earliest long-term chemical collaborator.

To everyone, not just his colleagues, Jerry was a sweet man. It is impossible to think of him without a smile. And that is how we will remember him.

Written by Frank Schroeder (chair), Bruce Ganem and Roald Hoffmann
Edward Carlos Melby, Jr. D.V.M. dean emeritus of the New York State College of Veterinary Medicine at Cornell University, died Sunday, April 22, 2018, following his battle with Alzheimer’s disease. He was 89 years old.

Ed Melby was the sixth dean of the college, appointed on October 1, 1974, by the Board of Trustees when George C. Poppensiek completed his term in 1974. Ed served as dean until 1984. His years at the helm of Cornell represented a decade of considerable growth and the expansion in the size and scope of college facilities and programs.

Dean Lorin Warnick indicated that we have all benefited from his work in expanding our research programs and in obtaining funding for new facilities that were built after his term as dean. Dr. Melby’s service and dedication has had significant, lasting impact on both the college and the veterinary profession. With Ed Melby as dean, the number of College employees grew from 468 to 820 full-time and 139 part-time student employees. The College’s budget also increased from $8.6 million to exceed $32 million. Over that same period, competitive grants and contracts awarded for current and future years rose tremendously from $3.8 million to $21.2 million.

For many years, Dean Melby worked to set the stage for planning and funding a new teaching hospital and to upgrade facilities built in the 1950s. New facilities were critical to preserving the college’s standing and to meet the challenges and opportunities of expanding clinical programs. Dean Melby also oversaw the new building to house an enlarged State Diagnostic Laboratory to offer expanded services to practitioners and others, including a program of Equine Drug Testing and Research to serve the equine racing industry in the State. Furthermore, to serve the equine importation industry, Dean Melby presided over the opening of the only Contagious Equine Metritis (C.E.M.) quarantine facility in New York State at the time, one of the few in the nation.

Administrative units at the college also saw expansion and re-organization under Dean Melby’s leadership. In particular, the Baker Institute for Animal Health underwent a major re-organization and growth. The Department of Avian Diseases changed its name and scope to include aquatic animal medicine and a poultry facility was built to further research on atherosclerosis, vaccines, Marek’s disease and other poultry disease. New departments, Preventive Medicine and Pharmacology, were also formed, while a single Department of Clinical Sciences was created that was sub-sectioned by
clinical specialty as well. The number of faculty, including interns and residents in the teaching hospital, increased along with both the size and complexity of clinical research.

Born in Vermont in 1929, Ed Melby served in the United States Marine Corps, then studied at the University of Pennsylvania and University of Vermont prior to receiving his DVM degree from Cornell in 1954. After being in private veterinary practice for 12 years in Vermont, Ed took a teaching post in comparative medicine at The Johns Hopkins University School of Medicine in Baltimore, where he was professor and director of the Division of Laboratory Animal (Comparative) Medicine. In addition to his regular teaching and administrative responsibilities, Dr. Melby served on several national councils and boards related to laboratory animal medicine. Ed also had a strong interest in the Baltimore Zoological Society serving as its director and president. In addition, Dr. Melby edited four major textbooks on laboratory animal science, including the three-volume *Handbook of Laboratory Animal Science* with Norman H. Altman, as well as publishing more than 50 scientific papers.

Dean Melby left the College in 1984 and took a position as vice president for research and development at SmithKline Beecham Laboratories in Philadelphia, from which he eventually retired to return to his family farm in Vermont. In the mid-1990s, Dr. Melby supported and worked with the Veterinary College Diagnostic Laboratory personnel to expand the Oral Rabies Vaccination Program in New York State into Vermont and New Hampshire to control the spread of raccoon rabies.

*Written by Alexander de Lahunta and Donald Lein*
Professor Eleanore Mikus was born in Detroit, Michigan on July 25, 1927. As a child, growing up in Detroit, she demonstrated an early interest in drawing and painting. While in high school, she attended classes at the School of Arts and Crafts in Detroit. She received an undergraduate degree in art and art history from the University of Denver and an M.A. in Asian art history from the University of Denver, with a focus on Tang-dynasty painter and poet Wang Wei. After moving to New York City, in the late 1950’s, she took classes at the Art Students League and New York University.

Her first major solo exhibition was at the Pietrantonia Gallery in New York City in 1960. Other exhibitions followed at Pace Gallery in Boston and New York, and participation in a group exhibition at the Whitney Museum of American Art. During the 1960’s, she developed the series of works, Tablets, that extended the abstract language of her paintings into reliefs—built up surfaces of laminated wood and other materials. The Tablets reflect a common practice as "we carry a tablet to write down our lessons, reference notes, memories, poetry, drawings, our private thoughts and even our doodles." It is also with work from this period that Eleanore utilized a singular color applied across the surface of the work, relying on the varying topography of the shallow relief of the surface to provide a complex arrangement of lighter and darker variations of the color. This approach was further explored through her Paperfold series—sheets of paper folded repeatedly horizontally and vertically across the entire surface resulting in intricate geometrical patterns. They utilized many different types of paper of different scale and were produced throughout the rest of her career. She shared an interest in this very particular approach to abstraction with the painter Ad Reinhardt who initiated a friendship after seeing her work in the exhibition at the Whitney Museum of American Art.

In the 1970’s, Eleanore produced quite a different body of works with images relating to childhood— toys and animals—painted in a childlike way, but on quite a monumental scale. The new works were presented in 4 exhibitions by the gallerist Ivan Karp at his seminal gallery O.K. Harris in New York City between 1971 and 1974. In the 1980’s she returned to abstraction and monochromatic paintings, concerns that sustained her studio practice throughout the rest of her life. In 2006, her depth and breadth of her artistic production was acknowledged with a large and significant exhibition at the Drawing Center in New York City, curated by Luis Camnitzer. The exhibition included 150 works from the period 1959-2006. In a review in the New York Times, it was noted that her work has "a still, quiet patience and a devotion to process that can be felt in nearly every work." This exhibit was followed by one at the Marlborough Gallery in New York.
Eleanore’s works were shown at the Craig Starr Gallery in 2017. The show as reviewed by John Yau in Hyperallergic, "[s]he brought together nuance and structure, making them (the art work) into a subtly captivating experience."

Her works are represented in the permanent collections of The National Gallery of Art, Washington, DC; Metropolitan Museum of Art, New York, NY; Whitney Museum of American Art, New York, NY; and the Victoria and Albert Museum, London, England. And her work has also been the subject of numerous articles and publications.

Eleanore began her distinguished teaching career at the Cooper Union in New York City in 1971. During the years 1973-76 she taught in England. She began teaching at Cornell University in 1979, continuing until her retirement in 1994. Her contributions to the Art Department were varied, focusing primarily on painting and drawing courses, but she also served as a valuable mentor to many graduate students. Judith Eisler, an undergraduate art major who studied with Eleanore has written that she “studied art at Cornell from 1980–1984. My first interactions with Eleanore immediately challenged my youthful perception as to what it was to make art and what it was to think about art. She talked about color and composition, about how an understanding of abstraction was the foundation for making strong figurative work. She asked us to name five female artists which was, at that time, a challenge that definitely shifted my mindset. Eleanore talked often about her own practice, about how she worked wherever and whenever one could, about her studio in the South Street Seaport in the 70s, her artist neighbors and friends. The determination and grit she applied to her work inspired me tremendously.” In addition to practical technical instruction and extremely well-articulated views on more theoretical subjects pertinent to art-making, Eleanore provided, in a warm and often humorous way, advice on how best to function as a sensitive, responsible and empathetic person in the world, as recalled by Ms. Eisler: “The advice that always echoes in my head, however, was given to me when I once told Eleanore that I wished such and such would happen in my life. She raised her head slightly, smiled broadly, and said “Ohhh, don’t wish your life away!”

Eleanore extended to her colleagues the same personal interest and concern she directed towards her students. Professor Gregory Page remembers: “Eleanore was a supportive colleague, and a mentor who wanted to make sure I could do well in the department. I remember lunches at the faculty club in the Statler and hallway chats with her to see how my classes were going and what new images I was working on. She would often approach me and say, “let’s go to the faculty club, I would like to give you some advice.” It was always good information about staying busy in the department with my classes, getting on committees, and of course exhibiting and going to New York.” And the following from Professor Stan Taft: “Eleanore and I would often cross paths in Tjaden Hall while she was teaching—the doors to our studios close to each other, and often she would grab my arm and pull me into the painting studio to see the work of one of her students—eyes wide open, that grin, the gestures of enthusiasm, pure joy and pride in the accomplishments of her students. It was infectious, and I’m thankful to have been able to witness that kind of deep engagement with students.”

Professor Eleanore Mikus died September 6, 2017 at her home in Ithaca, New York. She was 90. She is survived by her sister Virginia Wenzel, and her three children, Gabrielle Burns, Hillary Burns (Kamischke), and Richard Burns, Jr.

Written by Stan Taft and Gregory Page
Roy L. Millar, Professor Emeritus of Plant Pathology, was a national leader in the teaching of his branch of science and was an internationally respected researcher into host-pathogen interactions in plants. He was born in Calgary, Alberta, and attended public schools there. He enlisted in the Royal Canadian Air Force in 1943 and served as pilot in the Air Force and Royal Naval Fleet Air Arm for two years. In 1946, he enrolled in the University of Alberta, Department of Plant Science, receiving the Bachelor of Science degree in 1950 and the Master of Science degree in 1952. He then began doctoral studies at Cornell University with a major in plant pathology and minors in plant physiology and biochemistry. His doctoral research was under the direction of W. H. Burkholder and focused on the bacterial plant pathogen *Xanthomonas phaseoli*. He received the Ph.D. in 1955. Subsequently he served as a research officer in the Canada Department of Agriculture at Ottawa. In 1959, Roy was recruited to the faculty of the Department of Plant Pathology at Cornell to teach introductory plant pathology to graduate and undergraduate students and to conduct research on diseases of forage crops. He was promoted to associate professor in 1965, to full professor in 1969, and became a U.S. citizen in 1970.

Roy was known as an especially effective and challenging teacher. His emphases on clear logical thinking and writing were legendary among plant science students and were sometimes challenging for those enrolled in his courses or conducting research under his guidance. He was a passionate and caring teacher who cared mightily that his students learn. Most of his students (sometimes in retrospect) felt it a privilege to be in his classroom. Several entered the field of plant pathology as a result of their encounters with him. Alums of his graduate level courses respected the breadth, rigor and concepts presented. He employed innovative practices, some of which are characteristic of today’s 'flipped classroom'. One of these practices was to conduct oral exams. A student’s major professor was invited to the final exam. This practice stimulated a tremendous amount of study by the students and was, therefore, a particularly effective teaching tool.

Roy understood that clear writing was mandatory in science and he rigorously edited reports by students. It was initially a shock to receive a report that had been edited so effectively but the students came to appreciate those tough lessons. His reputation as an editor led to numerous requests to review manuscripts before they were submitted to journals.

Roy’s passion for teaching plant pathology was highlighted in a workshop, conducted with colleague Professor Carl Boothroyd in summer 1968 and funded by the National Science Foundation, to which
plant pathology instructors came from all over the USA to learn more about methods of teaching in this field of biology. Millar and Boothroyd presented an array of pedagogical concepts, techniques and materials that had worked well for them. Teachers attending the workshop found it to be highly stimulating. Their appreciation for the workshop, for Millar and Boothroyd, and for the content was amply visible in letters of appreciation they sent after the workshop. Alums from the teaching workshop and from Professor Millar's 'Plant Pathology 501' course adopted many of his innovations in their own teaching. He clearly had an important impact on plant pathology teaching across the USA.

Roy’s research was focused on host-pathogen interactions in diseases of forage crops. His students were among the first to explore the role of phytoalexins (pathogen-inhibitory compounds produced by the plants in response to infection). They discovered and characterized the phytoalexins medicarpin, sativan, and vestitol in alfalfa and other forage crops. His group also investigated the importance of hydrogen cyanide as a factor in the interaction between a cyanogenic plant and a pathogen. They confirmed the role of a cyanide-resistant oxidase in pathogens of cyanogenic plants. This oxidase enabled energy production for the synthesis of cyanide hydratase—an enzyme that detoxified cyanide to formamide. He investigated the biology and ecology of soil-borne pathogens of alfalfa and demonstrated that the alfalfa strain of *Verticillium albo-atrum* has limited capacity to survive in field soil and is amenable to control by crop rotation with small grain crops. In contrast, he determined that *Phytophthora megasperma* f. sp. *medicaginis* is remarkably long lived in soil, so crop rotation would have limited efficacy. In collaboration with plant breeders, he contributed to the development of alfalfa cultivars with high levels of resistance to the diseases caused by *Verticillium* and *Phytophthora*.

Roy’s passion for plant pathology was wonderfully visible to his colleagues. His accomplishments were recognized nationally when he was made a Fellow of the American Phytopathological Society in 1973—“for his balanced excellence in teaching, research and service”... which “stands as an example for all plant pathologists.”

Roy served his colleagues and his discipline extensively. At Cornell, he served as department chair in the late 1970s and early 1980s. For the American Phytopathological Society (APS), he served on numerous committees, perhaps most notably on the teaching committee. He was president of the Northeast Division of the APS in 1975-76 and served on the governing council of the APS as councilor at large in 1976-78. He was senior editor of the journal *Phytopathology* in 1971-72 and editor in chief in 1976-78. He instituted the practice of grouping like articles with similar or related content in that journal. This practice made searching the journal, which was only available in print form at the time, much easier for readers.

As a Canadian, Roy was particularly susceptible to the ‘hockey craze’ at Cornell in the late 1960s. He and his colleagues joined hundreds of other enthusiasts waiting in line for hours to obtain season tickets. He celebrated with thousands of Cornell fans over the undefeated season in 1969-70. His sons (Daryl, Craig, Brent and Mark) were avid youth hockey players.

Roy was predeceased by his wife of many years, Dorothy (Dottie) Hayward Millar (formerly of Granum, Alberta) in 1985. Roy retired from Cornell in 1986 and moved to San Diego where he later married the late Nadine Hargrave Millar. He moved to Prairie Village, Kansas, in 2010 to be closer to family.

*Written by William E. Fry, Wayne A. Sinclair and Gary C. Bergstrom*
Robert Demorest Miller served as Professor of Soil Physics in the Department of Agronomy (currently Crop and Soil Sciences) at Cornell University from 1952 to 1987. Born September 25, 1919, he died on April 11, 2011 in Ithaca at the age of 91. Bob married Beulah ("Buty") Wilson Cooper in 1941. They had three daughters, Leslie, Anne, and Melanie, and shared a lifetime of happiness and good fortune.

Bob grew up in Columbia, Missouri, the son of Professor Merritt Finley Miller, an eminent soil scientist, and Grace Ernst Miller. Bob graduated from the University of Missouri with a B.S. in 1940, and an M.S. from the University of Nebraska in 1941. During World War II, Bob enlisted in an officer's training program, with initial training as a meteorologist in the Army Air Corps. He eventually became an air traffic and air defense controller, an assignment that sent him leapfrogging about the Pacific during 1944-45. He was often responsible for guiding dozens of planes over vast areas in the Pacific war theatre. On August 28, 1945, he was a member of a small advance party sent to Atsugi Air Base near Tokyo, to prepare for the major American landings beginning the occupation of Japan. Shortly after landing, he raised the first American flag over Japan, on the radio mast of a C-47; it was "Z-2," two days before American combat troops began the actual armed occupation. The flag is now on display at the D-Day Museum in New Orleans. He wrote a fascinating book about his wartime experiences, titled Descent From Niitaka, 1941-1945: First Flag Over Japan, published by the Bullbrier Press.

Bob received his Ph.D. in soil physics from Cornell University in 1948. After completing an appointment at the University of California at Berkeley, he returned to Cornell in 1952 and remained until his retirement in 1987. From 1964 to 1965 he served as Assistant to the Provost at Cornell, at that time Dale Corson. From 1967-1971, he held the position of Dean of the Faculty, a period that included the 1969 Cornell crisis involving the student takeover of Willard Straight. He played a leading role in the peaceful resolution of the crisis, and remained a lifelong friend of then-President James T. Perkins. Since that time he had occasion over the years to
correct and re-correct the record of those events, as new generations of historians occasionally saw it fit to modify them.

Bob Miller was one of a select group of early scientists in soil physics. He authored many important articles and contributed to several significant books in the field. He is most recognized for two major scientific contributions. Early in his career at Cornell, Bob and his brother Edward, who was a professor in Soil Science and Physics at the University of Wisconsin, wrote a paper on the concept of scaling as it applied to soil hydraulic properties. This model, often referred to as Miller-Miller similitude, was based on the assumption that soil and other porous media are geometrically similar and that variations can be simply represented by a scaling factor.

Most of Bob’s research career was dedicated to the freezing phenomena in soils, and he made seminal contributions concerning the movement of water in frozen soils, the role of the double layer, and associated frost heave phenomena. This research body has a wide range of applications in both agriculture and civil engineering in cold climate regions, including road design, pipeline installation, winter heaving of perennial crops, frozen soil tillage, etc. The importance of his research was recognized in Soviet Russia, and in 1973 he was invited to Siberia to attend the Second Permafrost Institute. In 1982, he was asked by the Soviet government to give a series of lectures at the University of Moscow. While he was there, Bob was given a personal tour of Lenin's office and apartment in the Kremlin, a significant honor that few Russians were permitted. Bob also was a consultant on the Alaskan oil pipeline through the Cold Regions Research & Engineering Lab.

Bob taught soil physics during his entire career at Cornell and advised eighteen graduate students. Several became well-known scientists at major national and international institutions. He was well known around campus due to his university-level service and his cross-disciplinary scholarship, working in basic science, engineering, and agriculture. He was well respected among his peers for the high quality of his contributions, his self-deprecating sense of humor, and his quiet and thoughtful manner.

Harold van Es, Chairperson; Jean-Yves Parlange, Wilfried Brutsaert
Franklin K. Moore
August 24, 1922 – November 21, 2016

Franklin Kingston Moore, the Joseph C. Ford Professor of Mechanical Engineering Emeritus, died November 21, 2016, in Ithaca, where he and his wife Anne ("Nancy"), who survives him, had lived since 1965. Frank and Nancy had recently celebrated their 70th wedding anniversary.

Frank was born August 24, 1922, in Milton, Massachusetts, and grew up in Glen Rock, New Jersey. His lifelong interest in aeronautics began with the construction of numerous model airplanes, and he remembers riding his bicycle to Newark Airport to see Wiley Post’s Winnie Mae, the Lockheed aircraft in which Post had accomplished several around-the-world record flights.

After graduating from Ridgewood High School, Frank enrolled at Cornell, beginning a close relationship with the university that lasted the rest of his life. Frank earned his B.S. in mechanical engineering at Cornell in 1944, and then served for two years in the U.S. Army, stationed for most of that time on Adak in the Aleutian Islands. In 1946 Frank married his high school sweetheart, Nancy Smyth, whom he had met at an Elks Club dance when they both were in the ninth grade. The young couple moved to Ithaca, where they both took classes at Cornell on the GI bill. In 1949 Frank completed his doctorate in aerospace [aeronautical] engineering under the supervision of William R. Sears, and went to work as an aerodynamics research engineer at the NACA Lewis Flight Propulsion Laboratory (currently the NASA John H. Glenn Research Center at Lewis Field) in Cleveland. While at NACA Lewis Frank worked on the problems of screech in rocket engines and rotating stall in turbomachinery compressors, a problem to which he would make major contributions later in his career. He also served as editor of *The Theory of Laminar Flows*, which constituted Volume IV of the highly-regarded *Princeton Series on High-Seed Aerodynamics and Jet Propulsion*.

In 1955 Frank and his family moved to Buffalo, where Frank served as Head, and ultimately Director, of the Aerosciences Division of the Cornell Aeronautical Laboratories. Research in that period at the Aeronautical Laboratories (and elsewhere) focused on hypersonic flight and high-temperature aerodynamics associated with the re-entry into the
atmosphere of warheads and, later, Gemini and Apollo capsules. In later years Frank noted that he and others were particularly motivated after October 4, 1957 by the periodic appearance to the naked eye of Sputnik I as it passed over Buffalo in orbit. In 1960, he wrote a paper “Propagation of weak disturbances in a gas subject to relaxation effects” with W. E. Gibson in which they derived a nonlinear equation that now bears their names, the Moore-Gibson-Thompson or M-G-T equation, and is frequently quoted.

In 1965, Frank and Nancy returned to Ithaca and Cornell when he was appointed as the newly-established Joseph C. Ford Professor of Engineering. He taught in Cornell's School of Mechanical and Aerospace Engineering for 28 years, until his retirement in 1993. His research focused on the fundamentals and application of laminar flow boundary layers, an invaluable contribution to NASA's rockets, general aeronautic wing design, and failure issues in turbine design.

In 1984 he was inducted into the National Academy of Engineering, where his citation read "For pioneering fundamental research in fluid mechanics and continuing innovative engineering contributions to power-plant cooling and rotating machinery efficiency.” During this time, Frank was a member of a number of national committees concerned with aerodynamics, including the Committee on Microgravity Research, the Committee on Space Science Technology Planning, the Panel on Propulsion, and two terms on the National Research Council’s Aeronautics and Space Engineering Board.

In the following year he was awarded NASA's Exceptional Scientific Achievement Medal for his "numerous scientific contributions to the understanding of the fluid mechanics of aeronautics and space propulsion systems."

When Frank moved to Cornell to head the thermal engineering department in mechanical engineering, his interests changed from a focus on aerodynamics to the broader scope of mechanical and thermal engineering. This shift included energy technologies and environmental engineering. He contributed to research on power plant cooling effects on thermal pollution in lakes. The latter involved wind-driven transport, lake recirculation, and stratification and the lake thermal states as it undergoes its annual cycle. He also supervised research on dry cooling towers, a subject of renewed interest because of regions of water scarcity.

Some of Frank’s most influential work later in his career illustrated the depth of thinking that he brought to his research. While on sabbatical leave in 1981-82, as the Addison P. Rothrock Visiting Scientist at the NASA Lewis Research Center, he returned to the issues of rotating stall and surge, aerodynamic instabilities in turbomachinery compressors. In the former, regions of low or reversed flow, known as stall cells, propagate around the compressor annulus, at speeds of from 20 to 50 percent of the rotor speed. The annulus averaged flow is constant in time, but the individual blade passages see a highly unsteady flow that can reverse direction as the stall cells pass. Surge, on the other hand, is an overall oscillation of the annulus flow, again from reverse flow to high flow. The two phenomena are described here separately, but it is important to realize that they are coupled in a compression system.

On his sabbatical, Frank took a fresh look at the first of these phenomena, rotating stall in multistage compressors. He cast the problem in the framework of a nonlinear limit cycle, with the independent variable taken as the circumferential angle around the compressor annulus, rather than time as was typically done. His elegant approach captured, for the first time, the central dynamics of this complex flow field in a simple way—essentially a lumped parameter representation of the actual three-dimensional flow field.
Frank also saw the potential to go further with such models and proposed extending the ideas to the coupled problem—compressor transients that involved both surge and rotating stall. The basic insight was the realization that these could be usefully described without detailed knowledge of the stall and recovery process in the individual compressor blade passages of each stage of the compressor.

In a summer at NASA Lewis, Frank worked with Professor Ed Greitzer of MIT, who was thinking along similar lines. They developed a system of equations that could be solved using dynamical systems theory to predict whether a particular disturbance in the inflow to the machine would result in rotating stall or in surge. The distinction is important for the overall recoverability of the engine from a stall event in which surge is, in fact, the more favorable outcome.

Professor Greitzer’s memory is very clear about two items concerning the joint work. The first regards the insights that Frank had in the theory development; there is no ambiguity about the choice of first author in what has come to be known as the ‘Moore-Greitzer’ theory of compressor stability. Second is the realization that, even though Frank was ten years older, there was no hope of keeping up with him during evening runs along the trails behind the Lewis Center. The ideas that were developed during the collaboration also formed a basis for much successive work in the areas of compressor stall, compressor response to inlet distortion, bifurcation analysis of compression system stability, and active control of rotating stall and surge.

Frank had wide interests and was passionate about many things, engineering science and practice, art, literature, history, music, and athletics. He was a magnetic conversationalist and story-teller. He had a fascinating way with words, and could keep listeners spellbound, often to the point of causing them to lose track of time. Always interested in politics, Frank was a faithful Democrat from Adlai Stevenson on, and he walked door-to-door, campaigning for Barrack Obama in 2008. He was a member of the Ithaca Police Commission, served on Ithaca's zoning appeals board, and was a Lansing village trustee.

In the early 1960s Frank rekindled the passion for competitive running he had found as a member of the Cornell cross-country team. He finished the Boston Marathon three times, in 1971, 1972, and 1977. In 2002 he wryly noted that at age 80 he was finally nationally ranked, as the second-fastest runner in the United States in his age group, 80-84. He also cycled competitively and in 1979 won the United States Cycling Federation National Championship Time Trial race in the Grand Master age group.

Frank loved music and country dancing with Nancy and friends. He could remember the words of songs and poems, quoting Yeats or Willie Nelson at the drop of a hat. He brought his love for Cornell and music to Mechanical and Aerospace Engineering as a founding member of the *Upson Downers*, a barbershop quartet that sang Cornell and Holiday songs at various School functions over the years.

He was a painter, sculptor, and stained-glass artist. He was an avid reader. His knowledge of Native Americans, especially in the northeast, was remarkable. For years he and Nancy joined friends at Big Red football games and Hangar Theater productions. They enjoyed traveling to Europe, the Caribbean, and Ireland, and especially loved small-ship cruises to Alaska, on the Mississippi and St. Lawrence Rivers, and to Costa Rica and the Panama Canal.

In 2011, Frank and Nancy moved to Kendal at Ithaca. Frank took great interest in the woodworking shop and the weekly poetry group. He also enjoyed giving historical talks on such varied topics as the Boston Marathon and President James Garfield.
Frank is survived by his wife, Nancy, and their children David Moore (Barbara Peck), Cathy Moore-Jansen (Peer), Leslie Connors (Jonathan Zisk), Susan Moore (Peter Woodman), Jeffrey Moore (Kathleen), and Jennifer Cibelli (Steven); six grandchildren, and two great-grandchildren. His brother Stanley, his wife Elizabeth, and their children also survive Frank.

Written by Dave Caughey (Chair) and Sidney Leibovich
Mary Alice Morrison, Professor Emerita in the Division of Nutritional Sciences, died on January 10, 2017 at the age of 95 at her home in Kendal at Ithaca. She was born in Tofield, Alberta, Canada and later moved with her family to Calgary. She attended a teacher training school (Normal School) and from 1940 to 1943 she was an elementary school teacher in Salmon Arm, British Columbia. In 1943, she joined the Royal Canadian Air Force and served until 1946. After her Air Force service, Mary received a B.S. degree from the University of Alberta in 1949, and an M.S. in Food and Nutrition from Washington State College in 1951. She was an assistant Professor at the University of Washington from 1951-1955 before enrolling at the University of Wisconsin for a Ph.D. degree in biochemistry/nutrition, which she received in 1960.

Mary joined the Cornell faculty as an assistant professor in the Department of Food and Nutrition in the College of Home Economics in 1960. Mary’s research interests involved protein and amino acids and she taught courses on these subjects throughout her Cornell career. She was also interested in involving undergraduate students in research and, for more than 20 years, she provided leadership to the Honors programs for undergraduates, first in the Department of Human Nutrition and Food and later in the Division of Nutritional Sciences. She became a member of the American Institute of Nutrition in 1963.

In 1969, the Federal Extension Service established the Expanded Food and Nutrition Education Program (EFNEP). This program used paraprofessionals drawn from the community to provide food and nutrition education to low-income families. Mary was director of a Multidisciplinary Research-Action project in East Harlem, New York, from 1969-1976 that was an early evaluation of the EFNEP program. The project assessed the effectiveness of nutrition paraprofessional EFNEP aides working with physicians, nurses, and nutritionists in a program of service and education. The project provided an early research base for the new EFNEP program which is still carried out by Land Grant Universities, including Cornell. From 1963 to 1968 she chaired the USDA Northeast Regional Technical Committee, which coordinated the research of faculty in 10 universities.
Mary was acting Chair of the Department of Food and Nutrition, in the College of Human Ecology in 1973-74, when the department was joined with the Graduate School of Nutrition to form the Division of Nutritional Sciences. She was active in the deliberations on the campus that led up to the formation of the division.

In addition to her contributions to Nutritional Sciences on the campus, Mary was an active University citizen. She served on the campus animal welfare committee and served as committee chair for several years. Mary was active in the Faculty Council of Representatives, the forerunner of the University Faculty Senate. She served on the executive committee of the Council and chaired it in 1979-1980. Mary was also a member of the University Council on Physical Education and Athletics for years and served on the Title IX subcommittee.

In the semester before Mary retired in 1988, she was elected Secretary of the University Faculty. This was for a five-year term, so she continued these duties in her retirement. In 1990, federal laws eliminated mandatory retirement rules for University Faculty, so retirement issues for faculty were a major concern. Mary was involved with assessing faculty concerns about retirement and she was concerned that university policies on retirement benefits for faculty be clarified. Through her efforts the university administration provided clarification as to the benefits available to retired faculty. Mary also was active on retirement issues as she served as an active member of the Cornell Association of Professors Emeriti (CAPE). As part of her activities with CAPE, she helped to launch a special library workshop series for retired faculty at Mann Library in the mid-1990s. This collaboration resulted in the founding of the Mary Morrison Public Education Fund, which continues to make book talks, exhibits and other programs available at Mann Library for the Cornell campus community and the public. Her interest in retirement issues led to her participation in the Founding Advisory Committee that was involved in the establishment of Kendal at Ithaca, a continuing care retirement community in Ithaca. She was an active member of the Kendal community, where she was living at the time of her death.

Mary never forgot her Canadian roots and she spent time each summer in Salmon Arm, British Columbia, where she is buried.

*Written by Christina Stark, Malden Nesheim and Kathleen Rasmussen*
Dr. Robert R. Morrow passed away in Eden, Utah, on February 4, 2013. He spent his professional career of nearly 34 years at Cornell University, joining the faculty in October 1949 when he was appointed an assistant professor of forestry in what was then the Department of Conservation, renamed the Department of Natural Resources in 1970. Bob retired the end of May 1983, as a full professor, and then served as Professor Emeritus until his death.

Born in rural Vermont in 1920, he was the oldest of five siblings. He was raised near Hartford, NY, where he learned first-hand the basics of human dependence on the land through the hard work of farming during the Great Depression. An important part of the typical farm operation in that era was its woodlot and the products a woodlot yielded. His family’s and friends’ dependence on the bounty of a well-managed woodlot undoubtedly motivated him to learn how to manage woodlots to improve their productivity in a sustainable manner.

After completing high school, Bob entered Syracuse University with a Regents scholarship. He worked his way through college, obtaining his B.A. in 1942 and then, at the onset of World War II, joined the U.S. Navy. He attended midshipmen’s school, ultimately
serving as the firing officer on the USS Brooklyn, supporting the allied invasions of Sicily, Anzio, and southern France. Following the war, Bob returned to Syracuse where he married Betty Tracy and began post-graduate studies at the New York State College of Forestry, now College of Environmental Sciences and Forestry. Already a member of the Cornell faculty, he finished his Ph.D. in 1950, graduating in the College of Forestry’s first class of doctoral students.

Although Cornell University had discontinued its professional forestry program in 1937, Bob furthered the Department of Conservation’s commitment to teaching and conducting research about the management of New York’s non-industrial woodlots throughout his career – a legacy that continues today.

Known as a demanding but compassionate teacher, Bob instructed more than 1,000 students in good forestry practices, taking students armed with Biltmore sticks to field sites such as Cornell’s McGowen woodlot in Varna, NY and on-farm woodlots located nearby (e.g., Freeville, NY) and various managed areas of the Arnot Forest in Newfield, NY. In these places, out in nature, he taught and practiced care for the natural environment, leaving students with a life-long impression of how woodlots “worked,” metaphorically and practically for landowners. His courses provided the basis for forest stewardship practiced by Cornell graduates in their family-owned woodlots.

In the classroom, Bob was known for his command of facts and statistics, and his ability to do quick calculations in his head, without aid of calculators. He promoted the professional development and involvement of students, encouraging them to attend national and state-level meetings of the Society of American Foresters, for example. Many of these students went on to become forestry professionals, educators, researchers, and professors; some becoming deeply involved in the SAF, including holding elected office at various levels in this scientific and professional society.
Building on his Ph.D. research, Bob’s research program at Cornell focused on woodlot management and timber stand improvement, especially in support of the state’s fledgling maple syrup industry.

Over a 30-year period, he produced a series of extension publications based on his research that revolutionized sugar bush management (e.g. enhanced crown size) and the production of sugar maple sap (especially the innovative use of vacuum pumping). With extension colleagues in the department, particularly F.E. Winch, Jr. (Professor Emeritus, deceased), this work helped to shape the state’s maple industry into the thriving and important enterprise it is today. Bob also investigated hardwood tree planting, conifer plantation establishment and management, and the use of chemicals to eliminate unwanted vegetation, again producing numerous publications useful to the state’s forest landowners via Cornell Cooperative Extension’s outreach programs.

In addition to his research in support of the maple industry, Bob was widely recognized and appreciated for his work with forest landowners to develop the maple syrup industry in rural New York State. In 1986, he was inducted into the American Maple Museum Hall of Fame for these life-long contributions. Cornell’s Arnot Forest Sugar House at the university’s Arnot Research and Teaching Forest was named in his honor during retirement ceremonies in 1983.

In addition to his professional commitment to woodlot management, Bob had two additional passions during his time at Cornell—Syracuse University basketball and bridge. Lunch breaks in Fernow Hall often focused on these two subjects—with Bob singing the praises of the Syracuse “Orangemen” or playing bridge. Much to the chagrin of his colleagues who challenged either, Bob had instant recall of team and player statistics and he was a Grand Master bridge champion!

After 34 years at Cornell, Bob and Betty retired to Easley, S.C., where Bob directed his penchant for growing things to raising spectacular azaleas and rhododendrons. He also enjoyed boating on local lakes and developed a hobby of hiking to local waterfalls. This
mirrored his interests in natural beauty that originated in the hills of Upstate New York and remained with him throughout his career.

Bob and Betty encouraged opportunities for deserving students to engage in higher education by establishing scholarships at Syracuse University. Betty passed away in 1991. Bob is survived by a companion, four children, nine grandchildren, four great-grandchildren, a brother, and many grateful past students and colleagues.

Daniel J. Decker, Chairperson; James P. Lassoie, Gary R. Goff
Henry M. Munger, Professor Emeritus of Vegetable Crops and Plant Breeding died in Ithaca, New York at age 94. He was raised on the family farm near Byron, New York where he was educated in a one-room school, graduated from South Byron High School and entered Cornell University at the age of 16. He received the B.S. degree from Cornell in 1936, the M.S. degree from Ohio State University in 1937 and the Ph.D. degree from Cornell in 1941.

Thanks to his intelligence, his keen powers of observation and deduction, his tireless engagement, his commitment to his students, and the pleasure he took in his work, he established himself as one of the world’s most eminent vegetable breeders. Through a career that spanned more than 60 years, almost all at Cornell University, he released more than 70 vegetable varieties and breeding lines in nine different vegetable crops. He was especially famed for his almost incredible success with the backcross breeding method, and for his work on disease resistance. But he also pioneered improved nutritional characteristics, appearance, flavor and yield. Henry was also a strong advocate for the potential of vegetables to enhance nutrition and health throughout the world and for improving the eating quality and consumer acceptance of vegetables. During his career, he advanced a number of key concepts in advocating for an increase role for vegetables in the diets of the poor, especially in tropical environments.

An especially significant teaching experience was the long-standing partnership he shared with Royse Murphy teaching Methods of Plant Breeding. That partnership lasted decades and is memorialized now with the Munger - Murphy award, presented each year to an outstanding graduate student in the Department of Plant Breeding. Henry was also a mentor to 60 graduate students having advised 18 M.S. and 42 Ph.D. candidates. In recognition of his teaching, Henry received awards in 1983 and 1998 from the American Society for Horticultural Science. In addition to his contributions in teaching and research, Henry served as Head of the Department of Vegetable Crops from 1951 to 1966. His professional colleagues recognized him nationally by naming him editor of the Proceedings of the American Society for Horticultural Science from 1950 to 1956 and of the Vegetable Improvement Newsletter from 1959 to 1982. He was elected President of the American Society for Horticultural Science from 1966 to 1967.
As a public plant breeder, Henry always facilitated interaction with breeders in the private sector. In recognition of his contributions to vegetable breeding and collaboration with the vegetable seed industry, Dr. Munger was awarded the World Seed Prize in Belgium in 1994. His colleagues estimate that 95% of slicing cucumbers in North America trace back to his work bringing improvements including disease and insect resistance, non-bitter flavor, uniform color, dwarf habit and female lines. To recognize his many accomplishments including mild onions and long-keeping tomatoes, Henry Munger was the first living person to receive the honor of being elected to the Hall of Fame of the American Society for Horticultural Science in recognition of his outstanding contributions to the science, profession, and industry of horticulture. In this honor, he joins other horticultural luminaries previously elected posthumously including Liberty Hyde Bailey, Luther Burbank, and Gregor Mendel.

With his keen eye for observation of plant type and flowering habit, Henry identified a petaloid male sterile Queen Anne’s Lace plant while vacationing on Cape Cod. Wild Queen Anne's Lace can be crossed with cultivated carrot, so he tagged the plant, returned to collect seed and made crosses to cultivated carrots. Through work with several of his graduate students Dr. Munger directed studies that have revolutionized carrot breeding. Carrots are now almost exclusively sold as F1 hybrids produced using this system because of the gains in crop quality and uniformity that allowed a new product, baby carrots. This development resulted in significant increases in total US consumption of carrots. As a consequence of Dr. Munger's work, we now see snack packs of baby carrots included in millions of school lunches instead of chips or less nutritious foods.

Internationally, Dr. Munger served in consultancies in Ecuador, Egypt and India. He was a Visiting Professor in the College of Agriculture, University of the Philippines in 1969-70. He delivered the keynote address for the inauguration of the Asian Vegetable Research and Development Center in Taiwan in 1973 and was a member of the first Plant Science Delegation to the People’s Republic of China in 1974. In 1975 he was a member of the FAO Mission to appraise vegetable research in the tropics.

In recent years, when Henry Munger really had begun to slow down, he was heard to say that he couldn't imagine a career more meaningful and satisfying than the career he had known. Henry was a devoted husband to his wife of 54 years, Norma, and a devoted father to his daughters Martha and Nancy. One of his former graduate students captured the feeling of those of us who knew Henry by his statement read at Henry’s memorial service, "We will miss Henry as a teacher, mentor, colleague, but most of all as a friend."

_Edwin B. Oyer, Chairperson; Elmer E. Ewing, Royse P. Murphy, Robert L Plaisted, Robert D. Sweet_
Royse Peak Murphy, “Murph,” Professor Emeritus of Plant Breeding & Genetics died in Windsor, Vermont at age 98. Murph was raised on his family farm in Norton, Kansas, where he was educated in a one-room school, then graduated from Norton Community High School in 1932. He received the B.S. Degree from Kansas State College, Manhattan, Kansas, in 1936, and earned his M.S. (1938) and Ph.D. (1941) degrees from the University of Minnesota. At Cornell, Murph was well known for his contributions to our faculty and administration, but he was also a recognized leader both nationally and internationally.

Murph’s leadership abilities were recognized early. By age 15, he was chosen by his high school for the State Contest Judging Team, 1929, to assess plant identifications, grain and animal entries. At college he was an Undergraduate Assistant, elected to the Alpha Zeta Honorary Society and Farm House Fraternity; his Baccalaureate in Agronomy was awarded with honors. At Minnesota, under the mentorship of notable maize geneticist H.K. Hayes, he obtained a Masters in Agronomy, and Doctorate in Plant Genetics and Plant Pathology. There he was a Graduate Assistant, soon appointed Instructor, and elected to the Honor Societies Gamma Sigma Delta and Sigma Xi. The day following graduation Murph married Mildred Sneed, with whom he had three daughters, Janice, Jeanne and Lynne.
Upon graduation he was appointed Assistant Professor at Minnesota, then moved to Montana State University (Associate Professor, 1942-1946). During WW II Ensign Murphy enrolled in Radar School (1944) and was US Naval Reserve Lieutenant J.G. (Active Duty, 1944-1946). He served in the Pacific theater of operations aboard the USS Caswell. Following the war Murph was appointed Associate Professor in the Department of Plant Breeding at Cornell University (1946). He was soon promoted to Professor of Plant Breeding (1948) then assumed responsibility as Department Head (1953-1964). He served as Chair of the Committee on Plant Breeding & Genetics for the Agricultural Board of the National Academy of Sciences, National Research Council (1955-1963), and conducted Forage Crops Research for The Rockefeller Foundation in La Platina, Chile (1961-1962), during his sabbatical year. In 1969, he served as a consultant at Kasetsart University in Thailand for two months. The following year in Ibadan, Nigeria, he served as a visiting scientist at the International Institute of Tropical Agriculture. He was honored as Dean of the Cornell University Faculty (1964-1967), elected a member of the University Board of Trustees (1967-1970), and speaker of the Faculty of the College of Agriculture and Life Sciences (1976) until he “retired” on June 30, 1979. After 33 years with Cornell, he became Emeritus Professor of Plant Breeding on July 1, 1979; then continued another 32 productive years of contributions to the study of forage crops and specifically to the breeding and genetics of alfalfa (*Medicago sativa* L.).

Murphy was one of the leading breeders of forage crops in the United States. By retirement in 1979, in collaboration with Carl C. Lowe and graduate students, he had developed, released or registered varieties of Saratoga bromegrass, Essex timothy grass, and seven alfalfa varieties: Cayuga, Saranac, Mark II, Iroquois, Multileaf, Saranac AR with resistance to anthracnose, and Honeoye. Saranac and Iroquois became significant in the expansion of alfalfa in Northeastern US agriculture. Following retirement, continued collaborations with Don Viands and Julie Hansen resulted in Smooth bromegrass varieties York and Peak, and four additional alfalfa varieties Oneida, Mohawk, Reselect Saranac and Oneida VR.
Murph served on six college standing committees and many ad hoc committees. He was a dedicated teacher and mentored 21 doctoral and 12 masters’ students. Throughout his career, Murph taught courses in “Plant Breeding” and “Methods of Plant Breeding.” A supportive member of the Synapsis Club, the student/faculty organization established by the Plant Breeding Department at its inception in 1907, he took an active part in inviting alumni/alumnae to participate in their 50th, 75th and centenary anniversary celebrations. Ever avant-garde, Murph hired the first women Assistant Professor, Margaret Emmerling (1958), in the Department of Plant Breeding at Cornell. With Henry Munger he founded the Munger/Murphy Award (2002) given annually to outstanding graduate students in Plant Breeding and Genetics.

Murph chaired the committee for the “Symposium on Mutation and Plant Breeding,” sponsored by the Committee on Plant Breeding and Genetics of the Agricultural Board of the National Academy of Sciences-National Research Council. He wrote the Foreword to the Symposium volume, which was published the following year (1961). It included research results presented at the four day Symposium, held at Cornell in November 1960. Murph published more than 40 scientific research papers; ten following retirement, plus one book. In 2007, at age 93 he gave his first power point presentation at the Centennial Celebration for the Department of Plant Breeding and Genetics, accompanied by the publication of Evolution of Plant Breeding at Cornell University: A Centennial History, 1907-2006 (with Lee B. Kass).

In recognition of his contributions to Northeast Agriculture he received the Science Award by the New York City Farmers Club (1970). Other honors, pre and post retirement, include his election as a Fellow of the American Society of Agronomy (1955); American Association for the Advancement of Science (1958); and Crop Science Society of America (1985), serving as their President from 1961 to 1962. He received Honorary Membership in the New York State Seed Association in the mid 1970’s and in the North American Alfalfa Improvement conference (1988). In 1991 he received the Research Award from the Certified Alfalfa Seed
Council. Colleagues, friends and family honored Murph’s memory with a “Celebration of Life” in October 2013, held in Emerson/Bradfield Hall, the building which he played a major role in planning.

Murph was a presence at Love Lab and at Guterman Greenhouse complex, particularly post-retirement. He could be found pollinating alfalfa, checking on the bees, and rubbing out seed pods. As much as he loved talking about his past adventures, he was not nostalgic, rather embraced change and could see the big picture. He would tell his-stories (history), often starting with “It’s a curious thing, …” His recollections had as many branches as alfalfa has stems and the conversation always ended back at the origin or crown. Murph was ever present to provide encouragement to colleagues, students and staff. He was an avid reader, had a remarkably accurate memory, and was continuously willing to share his knowledge with others. His legacy lives on through his contributions to the Department of Plant Breeding and Genetics, the University and to the science he loved.

Lee B. Kass, Chairperson; Donald Viands, Robert Plaisted, Julie Hansen