

**OBITUARIES OF THE MEMBERS OF THE OHIO ACADEMY OF SCIENCE
REPORT OF THE NECROLOGY COMMITTEE, 2004**

The Necrology Committee of The Ohio Academy of Science, chaired since 1992 by Historian-Archivist Ronald L. Stuckey, consists of William R. Burk, University of North Carolina, Chapel Hill, NC; Christopher Cumo, Canton, OH; and Relda E. Niederhofer, Firelands College of Bowling Green State University, Huron, OH. The committee also expresses its gratitude to the following individuals and institutions for providing information: Beverly Bush; Bertha L. Ihnat, Library Associate, University Archives, The Ohio State University; Paul Jenkins, Library Director, College of Mount St. Joseph; Ralph Lenz, Professor of Geography, Wittenberg University; Alisa Mizikar, Reference Librarian/ Science Librarian, Thomas Library, Wittenberg University; Sandra D. Rutowski, Communicator, College of Biological Sciences, The Ohio State University; and Fordyce Williams, Archives Assistant, Robert H. Goddard Library, Clark University. The Academy office files may contain additional published and unpublished information on the deceased members treated in this report.

The committee is seeking volunteers to provide information or to write obituaries on deceased members of the Academy whose obituaries have not yet been written for *The Ohio Journal of Science*. Please contact The Ohio Academy of Science if you can assist in this effort. A two-page outline of instructions for preparation on obituaries in *The Ohio Journal of Science*, written by Ronald L. Stuckey, is available from the author or the Academy office.

The following is a list of deceased members of the Academy with the year joined and date of death, if known, whose obituaries have not yet been published in the *Journal*.

RONALD L. STUCKEY

NAME	DATE OF DEATH	YEAR JOINED
E. Barton Bell	2002	1968
John B. Brown	17 February 2003	??
Reuben Bullard	3 July 2004	1986
Isaac Knoll	11 July 2003	1964
Irving Mayer	25 March 2004	1959
Frederick Chapman Robbins	2003	1992

The following obituaries appear in the 2004 Report:	PAGE
Sister Alfreda Alexander (1912-2004)	140
Everett Homer Bush (1918-2003)	140
Thomas Jones Byers (1935-2003)	141
Mark Bessom Gorman (1952-2001)	141
Kenneth William Greenlee (1916-2003)	142
Russell John Long (1910-2002)	143
George Raymond Smithson, Jr. (1926-2002)	143

Sister Alfreda Alexander (1912 - 2004)

Sister of Charity of Cincinnati Alfreda Alexander, age 91, professor and former chairperson of the Department of Chemistry at the College of Mount St. Joseph, died on 23 February 2004, at the Mother Margaret Hall, a nursing home on the Sisters of Charity campus in Delhi Township, a western suburb of Cincinnati, OH. Along with a colleague, she was credited for introducing computers on the Mount St. Joseph campus. Recognizing her lifelong and distinguished service, the College bestowed an honorary Doctor of Humane Letters degree on Sister Alfreda in 2000. As a member of The Ohio Academy of Science, she joined in 1958, affiliated with Section Chemistry, and was accorded Emerita status.

Born 20 June 1912 on a farm in rural Shelby County, OH, Alfreda Alexander was the youngest child of August and Justine (Cordonnier) Alexander. She attended St. Remy School, Russia, OH, and later the Russia Rural School through the tenth grade. She completed her secondary education at Piqua Catholic High School. Following a religious calling in 1931, she joined the Sisters of Charity at Mount St. Joseph. She took the name Sister Mary Alfreda. Subsequent to the reforms of Vatican II in 1968, she resumed her baptismal name Sister Alfreda Alexander. Pursuing studies in chemistry, Sister Alfreda earned the A.B. (1939) from the College of Mount St. Joseph and the M.S. (1946) from the University of Notre Dame. Her thesis concerned the "Preparation and Properties of 1, 1, 3-Trimethoxybutane." She continued postgraduate studies at Fordham University (1949) and Notre Dame (summers 1959-1960). As a participant in the Summer Institute for College Teachers of Chemistry, sponsored by the National Science Foundation, she advanced her knowledge of chemistry, attending classes at Oregon State University (1966) and the University of North Carolina at Chapel Hill (1969). Her early professional experiences in teaching were at St. Lawrence Elementary School, Price Hill (a suburb of Cincinnati) (1933-1934); Catholic Central, Springfield, OH (1934-1935); and Holy Name High School, Cleveland (1935-1937).

In 1939, Sister Alfreda commenced a career in the Department of Chemistry at the College of Mount St. Joseph, where she joined the faculty and also served as chairperson from 1962 to 1977. A dedicated and dynamic teacher, Sister Alfreda cared deeply about her students. Sister Angela Marie Chiado, one of her close friends, noted that Sister Alfreda "used every means at her disposal to better her students." As an aid in laboratory instruction, she wrote a manual, "Experiments in General Chemistry" (College of Mount St. Joseph, 1959, revised 1964; 2nd edition, 1970). Under her direction, she prepared numerous women scientists, who became researchers, physicians, nurses, medical technologists, and teachers. In recognition of her excellence in teaching and her contributions to students, the Alumni of the college presented Sister Alfreda with the Faculty Appreciation Award in 1989. In research, she collaborated with Dr. Clara Deasy on studies on ester cross linkages in collagen and catalyzed hydrolysis of peptides. The results of their investigations were published in several archived chemical journals.

After retiring from academia in 1981, Sister Alfreda actively served in the region of Cincinnati as a volunteer, assisting at Clovernook Home for the Blind and St. Xavier Society for the Blind. She also participated in the Retired Senior Volunteers Program in which she assisted at the information desk at City Hall, once a week. For over 15 years, she served on the Sisters of Charity Corporate Responsibility Committee.

In professional organizations, Sister Alfreda held memberships in the Albertus Magnus Guild (a national association of Catholic chemists), the American Association for the Advancement of Science, the American Association of University Professors, the American Chemical Society, the National Science Teachers Association, and the Society for Applied Spectroscopy. She was elected into Iota Sigma Pi, an honor society for women chemists, in which she served as secretary of the Radium Chapter (1965-1967).

Surviving Sister Alfreda Alexander are nieces and nephews and grandnieces and grandnephews. She was predeceased by her immediate family members: four sisters, Delphine Schmidt, Laura Alexander, Anna Lalamand, Sister Remy Alexander, SC; and three brothers, Alfred, Leonard, and Hubert Alexander. Visiting hours were held in the Immaculate Conception Chapel at Mount St. Joseph Motherhouse, Cincinnati, on 26 February 2004, followed by the Mass of Christian Burial. Memorial contributions may be made to the Sisters of Charity of Cincinnati Retirement Fund, 5900 Delhi Road, Mount St. Joseph, OH 45051.

WILLIAM R. BURK

Everett Homer Bush (1918 - 2003)

Everett Homer Bush, age 84, Professor Emeritus and former chairman of the Department of Geography at Wittenberg University in Springfield, OH, died 1 January 2003 in Springfield Mercy Medical Center, Springfield, OH. Among his commendations, he received the Bronze Star for meritorious service in the United States Army during World War II and was honored as a 50-year member of the Association of American Geographers in 1997. Joining The Ohio Academy of Science in 1950, Bush affiliated with Section Geography (vice-president, 1960-1962), was elected a Fellow (1958), and was accorded Emeritus status (1996). As a participant in the Academy's Visiting Scientists Program, he presented several classes in geography at North Ridge Junior High School, Springfield, OH, in 1966.

Born 18 April 1918 in Westfield, MA, Everett Homer Bush was the son of Homer Earl and Edna Zell (Graves) Bush. His ancestors settled in Saybrook, CT, in 1636. Since 1669, at least eight generations of his family lived on a farm in Westfield, MA. In Westfield, he completed his secondary education and attended the State Teacher's College (now Westfield State College), where he earned a B.S. degree in education (1942) with a concentration in social studies. Called into military service in 1942, he joined the United States Army and trained at Camp Lee, VA. He served for over two years in England, Wales, France, and Belgium, working with truck transportation units (Red Ball Express) until being mustered out with the rank of Captain, 27th Quartermaster Corps. Subsequently joining the United States Army Reserves, he attained the rank of Colonel and retired in 1978. He also pursued graduate studies at Clark University, receiving an M.A. in geography (1947). Under the direction of Professor of Geography Walter Elmer Ekblaw, Bush completed his thesis, which concerned "The Geography of the Potash Water Supply in the Connecticut Valley in Massachusetts."

In 1947 Bush joined the faculty at Wittenberg University, where he was appointed an assistant professor in the Department of Geography. Concurrently, he pursued doctoral studies in geography, first at The Ohio State University (summers 1949, 1950) and then at Clark University while he took a leave of absence (1951-1952). In 1952 the Department of Geography was merged along with those of Geology and Astronomy to form the Department of Earth Science. Bush continued to teach geography in the newly constituted unit and assumed its chairmanship in 1960 when he was granted tenure and became an associate professor. After Geography was re-established as a separate department in 1964, Bush continued to teach geography and was appointed chairman in 1967. He was promoted to the rank of professor in 1974 and continued teaching until his retirement in September 1983 when he became Professor Emeritus.

Bush noted that the Geography Department served two basic roles: 1) providing a cognate field in training historians, sociologists, political scientists, and students in other areas of social sciences; and 2) offering a major in preparing secondary school teachers, city and regional planners, and students for graduate school to become professional geographers (*Wittenberg Alumnus* 22[1]:2-3, 1970). Bush was a popular instructor. He enjoyed the closer student/faculty association that a small school such as Wittenberg offered. His students affectionately called him "Professor Necktie" because he wore flashy, colorful ties. After wearing plain ones during military service, he thought that no tie was too gaudy to wear. Bush also taught students outside of academia. From June to August 1959 he headed a Summer Institute in which 36 junior and senior high school teachers attended classes that emphasized geology and astronomy. The aim of the institute was to improve the quality of science teaching at schools and to strengthen the capacity of science teachers in motivating their students to become science teachers.

Bush's fields of specialty in geography included geomorphology and climatology. In research he focused on economic geography. In 1966 Bush was one of three faculty members from Wittenberg to participate in research and studies on the civilization and culture of Latin America. Sponsored by the Regional Council for International Education, the program took place at Otterbein College during the winter months. Taking a sabbatical leave in 1971, he conducted independent research at the University of Newcastle in Australia. His studies entailed economic

geography and resource development as well as the geography of the South Pacific region.

Outside of his teaching and research, Bush was a faculty representative to the Ohio Athletic Conference (OAC) from 1965-1982. In the OAC he was elected vice president (1971), became president (1973), and was immediate past president (1974-1975). Wittenberg honored Bush for his contributions to athletics at the annual Varsity "W" Breakfast on 5 June 1982. Ever since joining the University, he participated in intramural softball, volleyball, basketball, handball, and bowling. He also officiated at Tiger (Wittenberg's team) swimming and track meets.

In professional associations Bush held memberships in the American Association for the Advancement of Science, the Association of American Geographers, and the National Council for Geographic Education. Active in civic affairs, he was a member of the Boy Scouts Council of Springfield. In the Kiwanis Club of Springfield, he served as president (1968) and was inducted into the Legends of Springfield Kiwanis (2002). He was active in the United Appeals Fund of Clark County and local government committees. He also enjoyed memberships in the Wright Patterson Air Force Officers Club and the Reserve Officers Association.

Surviving Everett Homer Bush is his wife Beverly Estes (Richmond) Bush, whom he married on 17 January 1943. He is also survived by two brothers, Harold Bush of Westfield, MA, and David Bush of Rochester, NY, as well as several nieces and nephews. He was preceded in death by his parents; a brother, Stanley Bush; and a sister, Barbara Bush. Visiting hours were held on 4 January 2003 at the Woods-Allgier Funeral Home, Springfield, where funeral services were also held on the following day with Reverends Stuart Rammes and Ed Dungan officiating. His body was subsequently taken to his hometown of Westfield. There, services were held at the First United Methodist Church. Internment took place with full military honors in the Pine Hills Cemetery in Westfield. Memorial contributions may be sent to the Kiwanis Foundation, P. O. Box 1653, Springfield, OH 45501-1653 or Wittenberg University, c/o Department of Geography, P. O. Box 720, Springfield, OH 45501.

WILLIAM R. BURK

Thomas Jones Byers (1935 - 2003)

Thomas Jones Byers, age 67, Professor Emeritus in the Department of Molecular Genetics, The Ohio State University, died at the OSU Arthur James Cancer Hospital, 21 September 2003, after a four-year illness with multiple myeloma. Byers, who came to OSU in 1964, was the University's first "molecular biologist." He was an original member and founder of the Molecular Genetics Department and the first director of the Graduate Program in Developmental Biology. Byers, who had a general interest in science, joined The Ohio Academy of Science in 1976.

Born 12 October 1935 to Ralph W., Jr. and Dorothy (French) Byers in Philadelphia, PA, and raised in Wenonah, NJ, Thomas J. Byers received his early education in that community. Tom received the B.A. in biology from Cornell University (1958) and the Ph.D. in zoology from the University of Pennsylvania (1962). He pursued post-doctoral education as a fellow in biophysics in the Department of Terrestrial Magnetism at the Carnegie Institute in Washington, DC (1962-1964). At The Ohio State University, Dr. Byers was an Assistant Professor of Zoology and Entomology (1964-1968), Associate Professor of Microbiology and Cell Biology (1964-1977), Professor of Microbiology (1977-1987), Professor of Molecular Genetics (1987-1995), and upon retirement became Professor Emeritus (1995-2003). Concurrently, he was the first Director of the Graduate Program in Developmental Biology (1972-1975), visiting Professor in the Department of Biochemistry at the University of Alabama, Birmingham (1987), and an Associate Dean of the College of Biological Sciences (1990-1995).

Tom Byers authored more than 40 articles and 90 abstracts in scientific journals. He was one of three editors of the book, *Genetics and Biogenesis of Mitochondria and Chloroplasts* (1975), which resulted from the first Biosciences Colloquium sponsored by the College of Biological Sciences of The Ohio State University in 1974. Dr. Byers served on numerous departmental, college, and university committees. He was particularly interested in those that were people related, among them were affirmative action, junior faculty development, and mentoring new faculty and graduate students—especially minority members of the latter group. Byers was a member of the Society of Protozoology, the American Society of Microbiology, and founder of the International Conference on Free-living Pathogenic Amoebas.

Tom Byers' research concerned the cell growth, differentiation, and developmental biology of protozoa, particularly the basic molecular biology and phylogeny of pathogenic amoebas; including the development of DNA-based diagnostic reagents for the detection and identification of those amoebas associated with human disease. One of Byers' basic research efforts was to identify and determine controls for the infection-producing strains. Heightened concern for these organisms in public health risks surfaced in the early 1970s when the amoeba *Acanthamoeba castellanii* was discovered causing an infection called *Acanthamoeba keratitis*. This infection occurs in the cornea of the eye, which is extremely painful, difficult to treat medically, and can cause blindness. Byers was able to provide, through the DNA analysis, an unequivocal epidemiologic link connecting the amoeba *Acanthamoeba griffini* occurring in domestic tap water, through the contact lens storage case, to the initiation of the disease keratitis causing the infection in the eye of a patient. This particular amoeba previously was not known to cause infections in human beings. Of his research, Byers has said in interviews: "I've always been interested in basic cell biology, but I'm influenced strongly by the need to apply basic methodology to solve disease problems." Dr. Byer's research is described further in the College magazine *Synergy* (10[1]:6-8, 1989).

As stated in the Resolution of Memoriam by the OSU Board of Trustees, Tom was a faculty member who had the remarkable ability to balance his skillful classroom teaching with his innovative research program and people-related service activities. As an administrator he worked to make the college a friendlier place by making an effort to determine people's needs. While it is easy to generate many ideas, the good ideas came from the people themselves, was Byers' essential philosophy. Tom had concern for others, a considerate and kind disposition, an unassuming modesty, and a positive and upbeat outlook in the face of adversity.

Thomas Jones Byers is survived, after 43 years of marriage, by his wife, Sandra Alice (Roberts) Byers; two children, son Stephen Byers and daughter Linda (Byers) Fontana; four grandchildren; and one brother, the Rev. Andrew C. Byers. A memorial service was held 25 September 2003 in the Worthington Presbyterian Church, where Tom participated as an active member. The Rodman Funeral Service was in charge of the arrangements. Memorial donations may be made to the Worthington Presbyterian Church or the OSU Department of Molecular Genetics, 484 West 12th Avenue, Columbus, OH 43210-1292.

RONALD L. STUCKEY

Mark Bessom Gorman (1952 - 2001)

Mark Bessom Gorman, age 48, associate academic dean, Baldwin-Wallace College, Berea, OH, three years in addition to 15 years in other capacities, died 18 August 2001 at his home in Berea from lung cancer. The author of numerous articles in refereed journals and in the newsletters of professional societies, Gorman fashioned a dual career in industry and academe. He joined The Ohio Academy of Science, affiliating with Section Genetics and Cell Biology and serving as Academy vice president and Section chair in 1991 and 1992.

Born 8 November 1952 in Salem, MA, Mark Gorman received a B.S. in biology from Marietta College, Marietta, OH, in 1974. That fall he entered the University of New Hampshire, Durham, as teaching assistant and graduate student, receiving an M.S. in genetics in 1976. His thesis concerned "An Electrophoretic Study of the Genetic Variation in the Commercial Soybean Germplasm." Doctoral courses in agronomy and plant breeding followed at Iowa State University, Ames, where Gorman was a research associate (1976-1978), an instructor of genetics (1979-1980) and a research technician (summer 1980). His research at Iowa State centered on Robertson's Mu element in corn. Gorman did not take a degree from the university but instead returned to the University of New Hampshire as a research assistant (1980-1983), where he

received a Ph.D. in genetics in 1983. His doctoral study included courses in genetics, molecular biology, plant breeding, evolutionary biology, plant biochemistry and statistics; his dissertation, "An Electrophoretic Study of Genetic Variation in Cultivated and Wild Soybean," extended his earlier graduate research by quantifying the genetic diversity of wild and cultivated varieties of soybeans. Dr. Gorman was assistant professor of biology (1983-1989) at Baldwin-Wallace College, where he taught introductory biology, honors biology, genetics and molecular biology, and research consultant (1984-86) in the biotechnology group of The Standard Oil Company, his research aimed at breeding herbicide-resistant varieties of alfalfa. He was a Cleveland teaching intern (summer 1984), Cleveland City Schools, in a program sponsored by Standard Oil, and a research associate (summer 1988) at Case Western Reserve University, Cleveland, OH, collaborating with Dr. Christopher A. Cullis, a plant molecular biologist, in mapping the genome of flax. Dr. Gorman was associate professor (1989-1994), assistant academic dean (1994-1998) and associate academic dean (1998-2001) at Baldwin-Wallace College.

Dean Gorman investigated the genetic diversity of soybeans and flax and bred corn and alfalfa for yield and other agronomic characteristics. Among his publications is "Genetic Variation of Soybean Germplasm," coauthored with Y. T. Kiang, Y. C. Chiang, and J. Y. H. Doong in *Proceedings of the International Symposium on Exploration and Utilization of Plant Genetic Resources* (1986), the culmination of his graduate research and of a \$125,000 United States Department of Agriculture (USDA) grant (1983). Other publications in the fields of agronomy and plant genetics are "Soybean," coauthored with Y. T. Kiang, a chapter in *Plant Genetics and Breeding* (1983) and "Constructing a Genetic Map of Flax Using Morphological, Biochemical and RFLP Markers," coauthored with Cullis in *Proceedings of the 54th Flax Institute* (1992). Dr. Gorman presented papers at meetings of The Ohio Academy of Science and the 19th Annual University of California, Los Angeles, Symposium on Molecular and Cell Biology (1990). In addition to the USDA grant, Gorman received two Baldwin-Wallace College Faculty Development Summer Grants of \$2,000 (1986 and 1989), a National Science Foundation grant of \$35,000 (1989), a Gund Grant of \$2,000 (1993) and a Martha Holden Jennings Foundation grant of \$8,000 (1994).

Dr. Gorman was a member of the Genetics Society of America, the American Genetics Association and the Cleveland Regional Association of Biologists. He reviewed grant proposals for the National Science Foundation, the USDA and Baldwin-Wallace College, and manuscripts for W. C. Brown and West Publishers, *The Journal of Heredity*, *Crop Science*, and *The Soybean Genetics Newsletter*. Gorman conducted workshops for science teachers of high school advanced placement courses and a biotechnology summer camp at Baldwin-Wallace College for 40 high school students. He delivered speeches before students and members of civic organizations on the value of biotechnology and science literacy. To further these goals he served on the State Ohio Teacher Education Critique Committee.

Wife Jackie Gorman; sons James of Chengdu, China, and Will of Berea; mother Martha of Marblehead, MA; and two sisters survive. His memorial service was held 20 August 2001 at the John Patrick Theater, the Kleist Art and Dance Center, Baldwin-Wallace College. Friends may make contributions to the Mark Gorman Scholarship Fund in care of the Development Office, Baldwin-Wallace College, 275 Eastland Road, Berea, OH 44017. Retained on file in the office of The Ohio Academy of Science is the obituary "Mark B. Gorman" from the *Cleveland Plain Dealer*.

CHRISTOPHER CUMO

Kenneth William Greenlee (1916 - 2003)

Kenneth William Greenlee, age 87, former director of the Hydrocarbon Research Project at The Ohio State University (OSU), and past president of Chemical Samples Company in Columbus, OH, died 1 December 2003 in Valparaiso, IN. As a lecturer for 21 years in the Department of Chemistry at OSU, he directed an outstanding research program involved in the advancement of refining petroleum. For his many years as an active member in the American Chemical Society, Kenneth W. Greenlee was honored in 1988 with an award for outstanding achievement and promotion of the chemical sciences. As a member of The Ohio Academy of Science since 1960, he affiliated with the Section Chemistry and was designated an Emeritus member in 1994.

Born 23 January 1916 in Leon, Mason County, WV, Kenneth William Greenlee, the son of Roy E. and Lola E. (Woodall) Greenlee, received his elementary education in the same town. He then relocated to Charleston, WV, where he graduated from Charleston High School and then entered Kanawha Junior College (now Morris-Harvey University), and while there for two years, Kenneth edited the *Kanawha Collegian*, and graduated with honors in 1935. With a scholarship subsidy, Kenneth then came to Antioch College in Yellow Springs, OH, where for three years he participated in their work-study program. He was involved in a cooperative plan for part-time training in industry and served for one year as a student trainee in chemistry in the Electrochemicals Department of the DuPont Company, Niagara Falls, NY. Kenneth was granted the B.S. degree with distinction in chemistry from Antioch College in 1938. In the fall of the same year, he entered the Graduate School of The Ohio State University and held the positions of Graduate Assistant (1938-1941) and Research Fellow (1941-1942) in the Department of Chemistry while completing the requirements for the Ph.D. degree. He was granted the Ph.D. degree in 1942; the subject of his dissertation being, "Reactions of Sodium Derivatives of Unsaturated Aliphatic Hydrocarbons," completed under his advisor, Albert L. Henne.

While a graduate student, Greenlee joined the University's Hydrocarbon Research Laboratory founded in 1938 by Professor Cecil E. Boord. In 1942, Doctor Greenlee entered into research on the synthesis and purification of hydrocarbons, in the capacity of Assistant to the Supervisor of the American Petroleum Institute Research Project in the Department of Chemistry and the Research Foundation of The Ohio State University. In the following year he was advanced to the position of Associate Supervisor with the same project and, in 1951, was given additional responsibilities as Associate Supervisor of a USAF-sponsored project on the mechanism of oxidation of hydrocarbons, which continued to June 1958. In July 1957, he undertook a new project on "synthetic natural rubber" for the Goodyear Company, helping to develop a process for which a multi-million dollar plant was constructed. With the retirement of Professor Boord in 1959, Greenlee was named Director and took full charge of the Goodyear Project and the American Petroleum Institute Project, which continued unabated until 1963. He held the title of Lecturer in the OSU Department of Chemistry, which required no classroom duties and permitted him to devote full-time to the research projects.

While at The Ohio State University, Dr. Greenlee's primary research program involved the advancement of petroleum refining, which had both theoretical and practical aspects. Among the latter was developing the chemical mechanism of combustion and procedures for attaining the highest yield of 100 octane fuel from crude oil. During World War II, this program was classified as secret. Later, the project was given a citation for helping to "win the war in the air."

In 1963, the Hydrocarbon Laboratory was "phased out" by decision of a Chemistry Department faculty committee in favor of "activities more suitable to a great university." At the time the Laboratory was supported with contributions of nearly two million dollars by the American Petroleum Institute (API), the Goodyear Tire and Rubber Co., and Columbia Organic Chemicals Co. The API component transferred its project to Oklahoma State University and offered Greenlee an associate professorship to continue directing the project and to supervise graduate student research, but he declined because he wanted to remain in Columbus.

Greenlee and his associate Vincent G. Wiley from the former Hydrocarbon Laboratory created their own company, Chemical Samples Company, with Greenlee as President. They constructed a six-building complex on Kenny Road near OSU and the Battelle Memorial Institute, where they had 15-20 employees. The company became a major producer of specialty hydrocarbons, including pheromones, one of which was an insect sex attractant. Those high purity chemicals were packaged in convenient units and shipped to researchers throughout the world. Greenlee and Wiley were chiefly responsible for the Goodyear project that led to the development of natural rubber's synthetic equivalent, "Natyn." In 1978 the company was acquired by Albany International Corporation, and Greenlee, as a Vice-President for Scientific Affairs, remained in the New Chemicals Division until his retirement a few years later. Greenlee's publications total 28 scientific papers, mostly in the

Journal of the American Chemical Society, and co-authored primarily with W. C. Fernelius, A. L. Henne, and C. H. Boord.

A member of the American Chemical Society since 1941, Dr. Greenlee became active in the Columbus Section of the Society in September 1951, when he was chairman of a committee to provide hospitality, a program of conferences, and tours for a group of 50 visiting foreign chemists. He was the co-founder and editor of the Section's news bulletin, *The Chemical Record* (1953), and served as Treasurer (1952-1953) and Chairman of the Section (1955-1956). Greenlee established the Division of Small Chemical Businesses (1980) and was its first chairman and editor of its newsletter, *Small Chem Biz News*. He was elected a member of Sigma Xi (1942), and was president of the Columbus Chapter of the American Rocket Society (1960). His listed hobbies were photography, gardening, woodcraft, and handball.

On 14 December 1947, Kenneth William Greenlee married Mary Elizabeth (Betty) Boord in Columbus, OH, where both were members of the Overbrook Presbyterian Church. After 53 years of marriage, Mrs. Greenlee died in 2001. Their surviving children are Sarah Anne (Sally) married to Adam Holterhoff of Valparaiso, IN; William John of Teaneck, NJ; and Mark Leroy of Plainfield, NJ. Both sons are married and graduated with Bachelor of Science degrees in Chemistry from OSU, and both earned their Ph.D. degrees from Harvard University. Other survivors are his brother Roy Greenlee of St. Louis, MO; five grandchildren and several cousins, nieces, and nephews. He was preceded in death by his parents and two sisters, Grace Greenlee Newton and Leslie Greenlee Jeanson.

The funeral service was held on 5 December 2003 at the First United Methodist Church in Valparaiso with the Rev. Rhonda Kruse officiating. A memorial service was conducted in Columbus the following morning at the Overbrook Presbyterian Church, with burial in Union Cemetery, Columbus. Memorials may be made to Visiting Nurse Association Foundation (Hospice) of Porter County, 501 Marquette Street, Valparaiso, IN 46383, or to the International Rescue Committee, P.O. Box 5058, Hagerstown, MD 21741. The Moeller Funeral Home, Valparaiso, IN, conducted the arrangements and can be contacted at angelcrestinc.com.

RONALD L. STUCKEY

Russell John Long (1910 – 2002)

Russell John Long, age 92, Professor Emeritus of Biology at Lamar University, Beaumont, TX, died 16 August 2002 at Christus Saint Elizabeth's Hospital, Beaumont. Long was an authority on the migration, settlement, and material culture of the Paleoindians of North America. He authenticated one of the earliest such settlements in what is today Texas. His work helped to demonstrate that humans had spread throughout North America by the end of the Pleistocene Epoch after having crossed a land bridge between Asia and North America between 10,000 and 11,000 BCE. This insight has bolstered the hypothesis that humans expanded rapidly in number and geography, a view congenial to the Malthusian model of exponential increase in population until checked by war, famine, and disease. Russell Long joined The Ohio Academy of Science in 1947 and became an Emeritus member in 1994. Academy records do not specify his section of affiliation, a fitting ambiguity given his breadth of interests.

Born 16 March 1910 in Ada, OH, Russell Long was the son of Emmet Elijah Long and Sarah Oliver (Hefner) Long. As a child Russell Long collected Paleoindian arrowheads on the farm of paternal grandfather Michael Long, an activity that stoked lifelong interests in prehistory, history, archaeology, anthropology (both physical and cultural), and pre Columbian material culture. After graduating from Ada High School in 1928 Long entered Ohio Northern University, Ada, where he decided against specialization in a single field of inquiry. Instead, Long received an A.B. in Liberal Studies from Ohio Northern University in 1932. He split his graduate courses between zoology and botany at Miami University, Oxford, OH, receiving an M.A. in zoology (the university then classified zoology among the Arts rather than Sciences) in 1933. His thesis, "A Study of an Interglacial Flora and Fauna from the Forest Floor between the Illinoian and the Early Wisconsin Glacial Advances," drew on the disciplines of botany, zoology, geology, climatology, and ecology.

At this juncture the necessity of earning a living impeded Russell Long's education, though jobs were scarce with the country in the throes of the Great Depression. Then as now, employers undervalued a liberal education, compounding the difficulty of his finding work. In these circumstances the absence of training in a branch of engineering or a kindred discipline may have hindered Long, and between 1933 and 1935 he subsisted on a sporadic income as a substitute teacher. Between 1935 and 1942 he was a journalist and news editor at the *Ada Herald*. The United States entry in December 1941 into World War II thrust Russell Long beyond the familiar surroundings of Ada. Between 1942 and 1945 he served in the United States Army. A member of the Army band Long played the tuba, an instrument on which he had been proficient since his teens. He performed for British and American troops in the Levant, Iran, Iraq, and India regions, then part of the British Empire. His travel in the eastern Mediterranean and in western and southern Asia broadened his appreciation of Islamic and Hindu civilizations. Long returned to the United States and received an honorable discharge from the Army in 1945.

His immediate postwar activities are unclear, though in 1948 he entered The Ohio State University, Columbus, under the provisions of the Servicemen's Readjustment Act of 1944 (the G.I. Bill) and in 1952 received a Ph.D. in zoology. His dissertation was entitled "The *Sciuridae* of Ohio: A Study of Their Ecology and the Anatomy of the Digestive Tract and Brain." Long had become instructor of biology at Lamar University the previous year, advancing to assistant professor (1952-1959), associate professor (1959-1965), professor (1965-1979), and Emeritus Professor of Biology (1979-2002). Dr. Long taught introductory biology, field biology, kinesiology, histology, and embryology, focusing in each on the methodology of science. He deemed the habits of inquiry and rigorous testing of hypotheses, rather than the retention of facts, the hallmark of education.

Russell Long's study of pre Columbian peoples and their material culture culminated in publication of *McFadden Beach* (1977), the first monograph in The Patillo Higgin Series of Natural History and Anthropology issued by the Spindletop Museum, Lamar University. *McFadden Beach* established the antiquity of Paleoindian settlement along 24 kilometers of coastline near what is today Sea Rim State Park, Sabine Pass, TX. Among the hand tools and projectile points, Long catalogued more than 65 from the Clovis industry, the largest such find in Texas to date. Dr. Long participated in "Paleoindian Archeology at McFadden Beach, Texas," a conference on 15-16 November 1991 in Port Arthur, TX, that affirmed the Paleoindian settlement near Sea Rim State Park as one of the earliest and richest in pre Columbian artifacts in Texas. In retirement Russell Long delighted in the culture of ornamental plants and the study of music. He was a member of Delta Sigma Phi, Kappa Kappa Psi and Phi Lambda Pi.

Predeceased by his parents and wife Viona Elwood, Dr. Long is survived by sister Margaret Farnlacher of Dayton, OH; sons Robert of Pueblo, CO, and John of Fallbrook, CA; daughter Joyce Stevenson of Cortez, CO; five grandchildren and one great grandson. His memorial service was held 19 August 2002 at Saint Paul's United Methodist Church of Beaumont, TX. Friends may make contributions to the Russell J. Long Scholarship Fund, Lamar University, 4400 Martin Luther King Boulevard, P. O. Box 10009, Beaumont, TX 77710 or the Beaumont Botanical Gardens, 6088 Babe Zaharias Drive, Beaumont, TX 77705. Retained on file in the office of The Ohio Academy of Science is the obituary "Russell John Long" from the Beaumont *Enterprise*. Information on Russell Long's undergraduate years is in the 1932 issue of *The Northern*, Ohio Northern University's yearbook, available at <http://journals.onu.edu/yrbook1932/main.cfm>.

CHRISTOPHER CUMO

George Raymond Smithson, Jr. (1926 – 2002)

George Raymond "Ray" Smithson, Jr., age 76, was project manager of research at Battelle Memorial Institute in Columbus, OH, for 33 years and pastor at Reese Station, Faith, and Obetz United Methodist churches in Grove City, OH. Mr. Smithson died 30 December 2002 of congestive heart failure at the home of his sister Sheila Bennett in Grove City. He had been under the care of physicians at Mount Carmel in Columbus, OH.

Throughout his career as a scientist and religious leader, Smithson labored to harmonize the methodology of science with the tenets of Christianity. In 1966 he joined The Ohio Academy of Science, affiliated with Section Chemistry, and in 1995 was elected an Emeritus member.

Born 2 March 1926 in Xenia, OH, George Raymond Smithson, Jr. was the son of George Raymond Smithson, Sr. and Lola (Runk) Smithson. Upon graduating from Xenia High School in Xenia in 1944, Mr. Smithson enlisted in the United States Army. He received an honorable discharge the following year and used the benefits of the Servicemen's Readjustment Act of 1944 (the G.I. Bill) to further his education, receiving in 1949 a B.S. in chemistry from Wilmington College in Wilmington, OH, and in 1951 an M.S. in chemistry from Miami University in Oxford, OH. He taught chemistry and physics during the 1951-1952 academic year at Rio Grande Community College in Rio Grande, OH, and in 1952 left education to pursue a career in research at Battelle Memorial Institute.

Mr. Smithson was a member of the American Institute of Chemists and Sigma Chi. A person of scientific and spiritual convictions, G. Raymond Smithson believed that the universe, in its order and mathematical precision, evidenced the majesty of God. In bringing this order and precision to light, science aided religion in the human quest to understand the divine. No conflict therefore exists between reason and faith; both seek the same timeless truths, believed Smithson.

His parents, wife Isla J. (Shaw) Smithson, sister Freda Lee, and brother Dale Smithson predeceased George Raymond Smithson, Jr. Surviving him are daughters Vicki Arthur, Holly Smith, and Bonnie Smithson; five grandchildren; and three great-grandchildren. Visitation hours were 3 January 2003 at Alan K. Miller Funeral Home in Grove City and the funeral the next day at Obetz United Methodist Church with the Reverend Valerie Waibel officiating. Mr. Smithson is interred at Concord Cemetery in Grove City. Friends may make contributions to Obetz United Methodist Church, 3068 Kingston Avenue, Grove City, OH 43123. Retained on file in the office of The Ohio Academy of Science, Columbus, is a brief obituary on Mr. Smithson from the Columbus *Dispatch*.

CHRISTOPHER CUMO