Chemical Society of Washington



WASHINGTON SECTION OF THE AMERICAN CHEMICAL SOCIETY

Celebrating 50, 60 and 70 Years of Membership in the American Chemical Society

Alfio's La Trattorio Restaurant Chevy Chase, Maryland

December 9, 2017



Honorees – 50, 60, and 70 Year CSW Members

Celebrating 50 Years:

Dr. Adorjan Aszalos

Dr. Donald George Barnes

Dr. Donna K. F. Chandler

Dr. Laurence Chung Lung Chow

Dr. Patricia M. Dehmer

Mr. Howard L. Dobres

Dr. James E. Girard

Dr. Charles Tucker Helmes, Jr

Dr. Harry Steven Hertz

Dr. Donald Alvah Juckett

Dr. Nathan Jay Karch

Dr. James Robert Katzer

Dr. Charles Donald Kimble

Dr. William Hayes Kirchhoff

Dr. John Joseph Langone

Mr. G. William Lawrence

Dr. Harvey Alan Lazar

Dr. Eldon Edward Leutzinger

Mr. David Reynolds Lide, Jr

Dr. Arthur L. Lipman, Jr

Mr. Robert Bruce Mac Callum

Dr. Maurice M. Margulies

Dr. Cheryl Lee Marks

Dr. Victor Esteban Marquez

Dr. J. V. Martinez de Pinillos

Dr. Marjorie Malmberg Maryott

Mr. Howard Mc Clain, Jr

Mr. Richard Earl Meyers

Dr. Stanley Richard Milstein

Dr. Chien-Hua Niu

Dr. Roberta Richards Owens

Dr. Jacques B. J. Read

Mr. Paul Gary Richman

Dr. Badaruddin Shaikh

Dr. Edward Gerald Skolnik

Dr. Louis Sokoloff

Ms. Mary Wat Trucksess

Dr. Phillip Jeffrey Wakelyn

Dr. Steven C. Weiner

Dr. Patricia Ann White

Mr. Noel Frederick Whittaker

Dr. Lee Randall Zehner

Celebrating 60 Years:

Dr. Joseph M. Antonucci

Mr. Herbert James Bahre

Dr. William Joseph Campbell

Dr. James E. Cassidy

Mr. James Herbert Krieger

Dr. Paul E. R. Nordquist,

Dr. Albert E. Pohland

Mr. Charles A. Rader

Mr. Norman E. Rawson

Mr. Arnold M. Rosenberg

Ms Elaine G. Shafrin

Dr. B. Vithal Shetty

Dr. Omega L. Silva

Dr. Maxine F. Singer

Mr. G. H. Edward Walden

Dr. James Wing

Mr. Ren Yeh

Celebrating 70 Years:

Mr. Luther C. Chien

Mr. Louis P. Domingues

Dr. David Firestone



SPEAKER

Carl G. Simon, Jr., Ph.D.
Biosystems & Biomaterials Division
National Institute of Standards & Technology

Tissue Engineering Scaffolds for Osteogenic Applications

Biography

Dr. Simon is a biologist and Project Leader in the Biomaterials Group at the National Institute of Standards & Technology. He earned a B.S. in Biology from Bucknell University in 1992 and a Ph.D. in Biochemistry from University of Virginia in 1998 where his thesis focused on signal transduction during human platelet aggregation. He trained as a post-doctoral fellow in NIST Polymers Division, and became a staff scientist at NIST in 2003. He has lead projects on tissue engineering and biomaterial scaffolds with a focus on cell-material interactions since 2007. Dr. Simon is Chair of ASTM Committee F04.43 "Cells and Tissue-Engineered Constructs" where documentary standards are being developed to support the development of medical products. Dr. Simon is active in the Society for Biomaterials and is on the editorial board for "Biomaterials" and "Journal of Biomedical Materials Research Part B".

Abstract

The use of scaffolds to engineer bone has been investigated from several perspectives. In one track, osteoprogenitor cells were cultured in several types of scaffolds and osteogenic differentiation was assessed. In another track, the 3D shape of cells in scaffolds was measured and analyzed with computational methods to determine how 3D cell shapes affect the cell physical properties with regard to differentiation. Finally, a high-throughput method for assessing osteogenesis in vivo has been developed that enables 19 osteogenic formulations to be tested in one mouse using the subcutaneous implantation model. Results will be presented and discussed in terms of how they may improve bone tissue engineering.

Dr. Patricia M. Dehmer

Pat Dehmer is the former Deputy Director for Science Programs in the Office of Science (SC) in the U.S. Department of Energy (DOE) (2007-2016) and the former Director of the Office of Basic Sciences (1995-2007) within SC. As the Deputy Director, she was the senior career science official in SC and was the Acting Director between Presidential Appointees, most recently for three years from 2013 to 2015. With an annual budget in excess of \$5 billion, SC is the primary supporter of the physical sciences in the U.S. Prior to joining DOE, Dehmer was a research scientist at Argonne National Laboratory (1972-1995). Beginning as postdoc, she rose through the scientific ranks to become an Argonne Distinguished Fellow in 1992. Her research in atomic, molecular, optical, and chemical physics resulted in more than 125 peer-reviewed scientific articles. Dehmer retired from Federal service at the end of 2016. She currently works as a management consultant and serves on various boards, science advisory committees, and in other capacities in professional societies. She holds a B.S. degree in Chemistry from the University of Illinois and a Ph.D. degree in Chemical Physics from the University of Chicago. She is a fellow of the American Physical Society and the American Association for the Advancement of Science.

Mr. Howard L. Dobres

Howard L. Dobres graduated from the University of Maryland (UMD) in June 1967, with a major in Chemistry. While an undergraduate, Dobres joined the Student Affiliates of the American Chemical Society (ACS).

Upon graduation, Dobres joined the ACS where he maintained his membership throughout his career. This resulted in his being awarded the 50 year membership award in 2017.

During his last two years at UMD, Dobres began his Government Career as a laboratory technician with the U.S. Department of Agriculture's Agriculture Research Service in Beltsville, Maryland. Upon graduation from UMD, Dobres spent two years in the U.S. Army where he was assigned as a forensic chemist at the Army's crime laboratory at Ft. Gordon, Georgia and Frankfurt, West Germany. After his discharge from the Army in January 1970, Dobres used his Army training to secure a position as a forensic chemist with the former Bureau of Narcotics and Dangerous Drugs (now the Drug Enforcement Administration) in Washington, DC. Dobres remained with the DEA until his retirement in March 2002 where he progressed to positions of Supervisory Chemist, Program Manager, and finally, Laboratory Director of the DEA Northeast Laboratory in New York City.

Since his retirement, Dobres has been an Adjunct Professor of Forensic Science and Chemistry at the University of Baltimore, University of Maryland, University College (UMUC) and Montgomery College, Rockville, MD, where he is currently on staff.

Dr. James E. Girard

James Girard is Professor of chemistry at the American University in Washington, DC. Dr. Girard came to American University in 1979 from General Electric's Corporate Research and Development Center in Schenectady, New York. During his tenure at AU, he has mentored more than fifty graduate students, both PhD and masters level. In 2010, he was elected Chair of the American University Faculty Senate and appointed to a two-year term of the American University Board of Trustees. In 2014, he was presented the University Faculty Award for Outstanding Service the University Community.

Dr. Girard is a specialist in analytical chemistry and has published over 60 articles on the methods and techniques used to separate complex mixtures. His research has generated more than \$4 million dollars in grants for American University.

Through the creation of innovative courses, Dr. Girard authored thirteen textbooks in chemistry, environmental and forensic science both of which are used by students throughout the world. His most recent book, *Criminalistics, Forensic Science, Crime and Terrorism,* has recently been translated by the National Police University of China.

In 2009, Professor Girard was named a Franklin Fellow at the U.S. State Department. In this fellowship he served as a science advisor to the Secretary of State. While at the State Department, he coordinated the USA's report to the United Nations Commission on Sustainable Development (CSD 18/19).

Dr. Girard has also served as an expert witness in numerous legal cases. He appeared as an expert in the Times Beach, Missouri dioxin trial and other more recent superfund cases. His expert work ranged from personal injury cases involving chemical exposures to patent infringement. He recently testified in landmark cases in Rhode Island and California as an expert for the attorney generals of those states seeking compensation from the lead paint industry.

Before coming to American University, Professor Girard was a research scientist at General Electric's Corporate Research and Development Center. There he provided analysis for projects involving jet engines, light bulbs, polymer development, appliances, nuclear power, PCBs, asbestos, power generation and silicones. He has developed methods to monitor worker's exposure and environmental releases, solved production problems and reverse engineered competitor's products.

Dr. Harry Steven Hertz

Dr. Hertz has been with the National Institute of Standards and Technology since 1973, originally as a research chemist, and then in a series of management positions including Director of the Chemical Science and Technology Laboratory. He served as the Director of the Baldrige Performance Excellence Program from 1995-June, 2013. He now serves as the Program's Director Emeritus, in a consulting capacity. Dr. Hertz has made presentations to a wide variety of audiences on elements of organizational excellence and change management, the Baldrige criteria for measuring performance excellence, and on health care quality improvement. He has been the intellectual driver behind the Baldrige Criteria for Performance Excellence and their evolving definition of performance excellence for almost 20 years.

He has a B.S. in Chemistry from the Polytechnic Institute of Brooklyn and a Ph.D. from M.I.T. Following graduate school, Dr. Hertz spent two years as an Alexander von Humboldt Fellow at the University of Munich. He is a Fellow of the American Association for the Advancement of Science (AAAS) and an Honorary Fellow of the American College of Healthcare Executives. He is an Adjunct Associate Professor at the American University in Washington, DC. and serves on several advisory committees. He was recently appointed to the Board of Trustees for Sibley Memorial Hospital, part of the Johns Hopkins Health System.

Dr. William Hayes Kirchhoff

I graduated with a Bachelor's degree in chemistry from the University of Illinois in 1958, received a Master's degree in physics in 1961 and a PhD in Chemical Physics in 1963, both from Harvard University. After a year of postdoctoral research at the Inorganic Chemistry Laboratory, Oxford University, I began my career at the National Bureau of Standards in 1964 as a National Research Council postdoctoral associate, working with David R. Lide who is also being recognized today. During the 23 years I spent at NBS, I conducted research in the field of microwave spectroscopy and later biothermodynamics. In between I was in management in environmental measurements and thermodynamics and molecular science. I left NBS just before it became NIST, and joined the Office of Basic Energy

Sciences of the Department of Energy where I was program manager for chemical physics from 1987 until my retirement in 2004. My wife Ann and I have been married for nearly 60 years and we have four children, eleven grandchildren and one great-grandson. I am a member of the American Chemical Society (obviously), the American Physical Society, Sigma Xi, and a fellow in the American Association for the Advancement of Science. At one period in my career, I was active in the American Society for Testing and Materials.

Mr. David Reynolds Lide, Jr

David R. Lide received his B.S in Chemistry from Carnegie Institute of Technology in 1949, M.A. in Physics from Harvard in 1951, and Ph.D. in Chemical Physics from Harvard in 1952. He was a Fulbright Scholar and Ramsay Memorial Fellow at Oxford in 1952-53. He was a staff member of the National Bureau of Standards (now the National Institute of Standards and Technology) from 1955 to 1988, where he carried out research in microwave and infrared spectroscopy, molecular structure, high temperature chemistry, and infrared lasers. From 1963 to 1968 he was Chief of the Molecular Spectroscopy Section and in 1969 became Director of the Standard Reference Data Program at NBS, a national effort to produce critically evaluated databases of physical, chemical, and materials properties. He founded the *Journal of Physical and Chemical Reference Data*, published jointly by NBS, the American Chemical Society, and the American Institute of Physics, and served as Editor from 1972 to 1992. From 1989 to 2010 he was Editor-in-Chief of the *CRC Handbook of Chemistry and Physics* and continues as Editor of the Internet Edition.

Dr. Lide has served as President of the Committee on Data for Science and Technology (CODATA) of the International Council for Science, President of the Physical Chemistry Division of the International Union of Pure and Applied Chemistry (IUPAC), Chairman of the IUPAC Committee on Chemical Databases, Chairman of the American Chemical Society Task Force on Scientific Numerical Databases, Chairman of the AIP Publication Board (1979-80), Chairman of the AIP Planning Committee for the *Physics Vade Mecum*, and Councilor of the American Physical Society, representing the Division of Chemical Physics. Membership on advisory boards includes Chemical Abstracts Service, Petroleum Research Fund, Engineering Information, Inc., National Materials Property Data Network, Chemistry Departments at Harvard and Princeton, and various panels of the National Academy of Sciences - National Research Council. He held National Science Foundation Senior Postdoctoral Fellowships at University College London in 1959-60 and the University of Bologna in 1968-69. Awards include the Department of Commerce Gold Medal in 1969; the Samuel Wesley Stratton Award of NBS for research in microwave spectroscopy in 1969; a Presidential Rank Award of Meritorious Federal Executive in 1986; the Herman Skolnik Award in Chemical Information in 1988, and the Patterson-Crane Award of the American Chemical Society for Contributions to the Documentation of Chemistry in 1991. In 2003 he was designated a lifetime National Associate of the National Academy of Sciences. He received the CODATA Prize in 2016.

In addition to his work as Editor-in-Chief of the CRC Handbook of Chemistry and Physics, he is the author of Basic Laboratory and Industrial Chemicals, Handbook of Thermophysical and Thermochemical Data, Handbook of Organic Solvents, and Handbook of Data on Organic Compounds. He has also edited a commemorative book marking the centenary of the National Bureau of Standards - National Institute of Standards and Technology, A Century of Excellence in Measurements, Standards, and Technology. He served as coeditor of a new edition of AIP Physics Desk Reference, published by Springer Verlag in 2002.

Mr. Richard Earl Meyers

Mr. Meyers earned Eagle rank on September 16, 1957 in Arlington, Virginia. He has a long and distinguished career as an expert in explosive forensics and has served his country in both military and civilian service.

As an undergraduate Research Assistant at American University, Dick helped determine why some of the original NASA satellite rockets exploded in flight. His team discovered an error of approximately 50% in the engineering design calculations. While stationed at the Edgewood Arsenal, Mr. Meyers identified and diagnosed a problem with the housing of Military Protective Masks.

During his long career, Mr. Meyers played a lead role in developing courses to train personnel in forensic investigative techniques:

- He helped develop the Advanced Explosives Investigative Techniques Course for Local, State, and Federal Departments and for State Department classes around the World.
- He helped develop a course in the Systematic Analysis of low Explosives for State and Local Police Department Forensic Laboratories.
- He helped develop the National Firearms Academy course for State and Local Forensic Laboratories.

Mr. Meyers also helped set up the Bureau of Alcohol, Tobacco and Firearms National Response Team comprised of Special Agents, a Forensic Chemist, an Explosive Enforcement Officer and a Team Supervisor. The Team responded to major Bombing and Arson cases in the United States (e.g., the Oklahoma City and original World Trade Center Bombings, and TWA Flight 800), and was expanded for use overseas.

While investigating the Oklahoma City bombing, Mr. Meyers and several other members of the response team interviewed a teacher at the YMCA daycare center located across the street from the explosion. The teacher was traumatized and distraught that she had not done enough to help protect the children in her care. Dick and his associates spent approximately four hours talking through her perceptions and helped her understand how much she actually had accomplished. The team spent another four hours talking with the children and helping them address their fears. Richard's team also worked with local ministers, and many local residents started referring to them as Heroes. Richard would respond that it was the residents who were the Heroes because they refused to be intimidated or defeated. The local High School put together a PEP rally for them, which the team found very touching.

Today, Mr. Meyers is recognized as an expert in the field of the Forensic Examination of Explosives, and has submitted testimony for over 90 cases in 35 states. He is a member of the International Association of Bomb Technicians and Investigators and was awarded their Distinguished Service Award. He also was awarded the Treasury Department's Secretary of Treasury Award and the Gallatin Award. He is highly acclaimed by the Montgomery County Bomb Squad and has authored several articles published in Scientific Journals.

Dr. Stanley Richard Milstein

Dr. Milstein retired in February 2017 as Acting Deputy Director in FDA's Office of Cosmetics and Colors at the FDA Center for Food Safety and Applied Nutrition (CFSAN) in Washington, D.C. Prior to joining the Agency, Dr. Milstein held several senior scientific and regulatory affairs positions in the R&D Division of the Andrew Jergens Company (Cincinnati, OH). He represented, FDA (until 2017) as a member of the U.S. delegation to the International Cooperation on Cosmetics Regulation (ICCR) and as the agency's non-voting liaison to the Personal Care Product Council (PCPC) International Nomenclature Committee (INC) from 1991-2017.

Professionally, Dr. Milstein is a Fellow of the Society of Cosmetic Chemists (SCC) and served the SCC in several local, regional, and national elected capacities over the past 35+ years. He served as Chair, Ohio Valley Chapter (OVCSCC) in 1984, Area II Director (1985), and also a term as President of the National SCC in 1992. He served as 2014 Chair, Mid-Atlantic Chapter SCC (MACSCC) and is currently the Senior SCC Area IV Director (Mid-Atlantic, Southeast,

Florida, and Carolinas Chapters). He has been an active member of ACS since 1968 and of the Cincinnati Section (CINTACS) and the Chemical Society of Washington (ACS-CSW). He has held several visiting and adjunct faculty appointments in general and organic chemistry, as well as in cosmetic science in the Departments of Chemistry at Adelphi University (Garden City, NY) and the University of Cincinnati, respectively. Dr. Milstein has frequently addressed foreign regulatory delegations to FDA-CFSAN and has also spoken to audiences at CTFA, PCPC and ICMAD industry conferences. He also has been an annual invited presenter at the FDA Office of Regulatory Affairs University course on Import Operations and Entry Review and has made presentations at the Regulatory Affairs Program of Temple University. Most recently, he organized and co-Chaired a session on "Cosmetic Chemistry" at ACS-MARM 2017 (Hershey, PA, June 5, 2017).

Dr. Milstein has published in the peer review literature of organic and medicinal chemistry, cosmetic science, and regulatory affairs, most recently as principal co-author of two chapters on cosmetic regulation in the <u>Handbook of Cosmetic Science and Technology</u> (Marcel Dekker/ Taylor-Francis, 2001, 2006) and co-author of a chapter on the analysis and regulatory aspects of color additives in cosmetics in <u>Analysis of Cosmetic Products</u> (Elsevier, 2007, 2017).

Dr. Milstein holds a B.S. degree in Biology from Rensselaer Polytechnic Institute, an M.S. degree in Pharmaceutical Sciences (Cosmetic Science) from the University of Cincinnati College of Pharmacy, and a Ph.D. in Organic Chemistry from Adelphi University (Garden City, NY). He also completed two post-doctoral research fellowships in medicinal chemistry and QSAR at Pomona College (Claremont, CA) and at the University of Cincinnati College of Pharmacy (Cincinnati, OH).

Dr. Roberta Richards Owens

I had an interest in pursuing biomedical research as a career early on since my father was a research biologist for the Public Health Service and gave me several opportunities to observe the work done by other scientists in his laboratory. My decision to major in chemistry rather than biology was influenced by having a dynamic woman chemistry teacher in high school. I received a B.S. in chemistry from Bucknell University in 1967 and a Ph.D. in biochemistry from Purdue University in 1974. My thesis topic was unsaturated fatty acid biosynthesis, chosen in part because I had worked as a summer intern at the National Institutes of Health in a lab doing studies on glycolipids in neurological diseases so had learned many of the lab techniques used in most lipid biochemistry.

I spent my whole working career (1974-2010) as a research chemist at the Walter Reed Army Institute of Research. My research included studies on the immunology of phospholipids and glycolipids, development of liposomes as vaccine carriers, including liposomal malarial and HIV vaccines.

Dr. Jacques B. J. Read

I began graduate school at Yale under Prof. John G. Kirkwood in theoretical chemistry (MS 1958). Upon his death in 1959 I changed to an experimental thesis under Prof. Richard L. Wolfgang at Yale's Heavy Ion Accelerator Laboratory (PhD 1962). I post-doc-ed at Columbia under Prof Julian M. Miller, then taught chemistry courses briefly at Fairleigh Dickenson before joining the radiochemistry department at Lawrence Livermore Laboratory in 1964, where I had an adjoint appointment performing classified weapons research and teaching in the Department of Applied Science under Prof Edward J. Teller. In 1973 I was detailed by the university to act as a consultant to the Atomic Energy Commission in Washington. When this assignment ended in 1975 I joined the Federal government, eventually becoming a section leader in the Severe Accident Branch of the Nuclear Regulatory Commission. In 1989 I changed to the Department of Energy, eventually becoming Director of the Division of Quality Assurance and Transportation

Safety, retiring in 2003. Since retiring, I have been a guest lecturer at George Washington, and since 2013 a study group leader at American University's Osher Lifelong Learning Institute.

Mr. Paul Gary Richman

Dr. Richman is a biochemist, now retired after a 35 year career in the Food and Drug Administration's Center for Biologics. He spent the first ten years in the laboratory designing assays that were incorporated into the regulatory program for allergenic extracts. He then switched to regulatory review full time and served as a branch chief for vaccines and related products where he supervised the review of license and investigational new drug applications. He earned a B.S degree in Chemistry in 1967 from Brooklyn College of the City University of New York and a Ph.D. in Biochemistry from Cornell University Graduate School of Medical Sciences in 1975 where his thesis focused on the mechanisms of enzyme reactions involved with amino acid metabolism. He then did post-doctoral research at Yale (1974-1976) and NIH (1976-1979) before joining the FDA in 1979.

Dr. Badaruddin Shaikh

Education

Dr. Shaikh received B.Sc (Honors) degree in Chemistry from the University of Sindh, Jamshoro, Pakistan in 1963 and Ph.D degree in Chemistry from The American University, Washington DC in 1970.

Professional Experience

1980 - 2013 Research Chemist and Chief Veterinary Pharmacology Toxicology Branch, FDA/CVM Office of Research, Laurel, MD.

1972 -1980 Staff Scientist, Frederick Cancer Research Center, Fort Detrick, Frederick, MD.

1970 -1972 Research Chemist, General Cigar Company, Lancaster, PA.

Membership & Activities

Dr. Shaikh joined American Chemical Society (ACS) in 1968 and was initiated in Alpha Chi Sigma, Chemistry Fraternity in 1969. He has been a member of Sigma Xi, Washington Chromatography Discussion Group (WCDG), AOAC, International Society for the Study of Xenobiotics (ISSX), American Association for the Advancement of Science, etc. Dr. Shaikh has been Program Chairman and President of WCDG; served on a number of CSW committees; served as a HS science judge for Sigma Xi. He also organized a number of Symposia, Chaired various Technical sessions at ACS, AOAC, Pitt Con; and invited as a speaker at national and international scientific conferences. He has also served on the editorial board as well as a guest editor of scientific journals.

Career Highlights

The overall scope of Dr. Shaikh's research, particularly at FDA, has been development of analytical methods for trace level of drug residues in tissues and fluids of food producing animals, as well as, studying the metabolism of xenobiotics in animals. Dr. Shaikh has developed analytical methods and conducted drug disposition studies of aminoglycosides, diuretics, sulfonamides, benzimidazoles, avermectins, etc. in tissues, plasma, eggs and milk of food producing animals. Dr Shaikh also conducted several interlaboratory residue method validation studies of various animal drugs, submitted by pharmaceutical industry to FDA/CVM for approval.

For the last several years, Dr. Shaikh's research focused on the metabolism and residue depletion of both labeled and non-labeled model drugs in finfish species of importance to US aquaculture. This research resulted in establishment of Marker Residue (s) for species grouping in seven aquacultured finfish and will have public health impact to reduce the chance of using illegally unapproved drugs by fish farmers, domestically as well as

internationally. Dr Shaikh's research work has resulted in over 60 publications in peer-reviewed scientific journals and a number of book chapters.

Awards and Committees at FDA

Served on FDA Radiation Safety Committee; CVM, CDER and CFSAN Peer Review Committees; numerous FDA/CVM committees. Served as a Preceptor to a FDA Commissioner's Fellow; received JIFSAN grant to support a Ph.D student at the University of MD; received numerous awards, e.g., Excellence in Analytical Sciences, Team Excellence, Equal Opportunity, etc.

Hobbies

Dr Shaikh enjoys visiting Gymnasium, Golfing, Fishing in Chesapeake Bay and Traveling to see the World.

Dr. Joseph M. Antonucci

I am a 60 year ACS member, a long-term member of the CSW Board of Managers, former CSW President-Elect and President, President of the Retired Chemist Group, and Chair of the Senior Chemist Committee. I have organized symposia for CSW, MARM, ACS and helped with national ACS meetings in Washington, DC. I have chaired/co-chaired the Program Committee of CSW, served on numerous other committees, and mentored Project Seed students. I am an Emeritus Chemist and Consultant at NIST, involved in mentoring Graduate and Post Doctorate students. I was involved with the ACS committee that designated NIST a National Historic Chemical Landmark. I have been a Councilor to ACS for over 25 years, first on the ACS Council on Committee on Admissions, then on the ACS Committee on Chemical Safety, and currently on the Joint Board-Council Committee on Patents and Related Matters. I have consistently sought ways to help our local section grow and prosper, and to promote chemistry as a core scientific profession.

Mr. Charles A. Rader

B.S., chemistry, 1955, University of Maryland. U.S. Army chemical corps. U.S. National Bureau of Standards. The Gillette Company.

Last position: Research Director, Gillette Research Institute, Gaithersburg, Maryland. Retired January 2000.

Mr. Norman E. Rawson

Norm Rawson earned a BS in ChE in 1958 and a MS in ChE in 1959 from Northwestern University. He joined the Union Oil Company (Pure Oil Research Center) from 1959-1965 working in simulation techniques for refinery processes. He assisted in developing the American Petroleum Institute's Petroleum Abstract Information Retrieval System, and became chairman of the Chicago Section of AIChE. He joined IBM Corporation in 1965. While at IBM he created a customer executive education program at IBM Research, developed a Process Industry marketing strategy for the US, and was elected an Industrial Trustee of the CACHE Corp, He retired in 1994 as an IBM Consultant, and taught computing for several years at Montgomery College as an Adjunct Professor.

Ms. Elaine G. Shafrin

I was born in Boston in 1922. My K-12 education was received in 13 schools distributed among districts in Massachusetts, New Hampshire, Ohio, and Michigan. My interest in chemistry dates back to age 13 when I heard a report on research to determine and reproduce the chemical reactions responsible for fluorescence in fireflies. In 1939 I entered The University of Michigan iin Ann Arbor where I received my B.S. in 1943 in Chemistry and M.S. in 1945 split between chemistry and physics.

After Pearl Harbor I worked on war-related projects for the University's Department of Engineering Research. My involvement with the ongoing program of surface chemical research for the Naval Research Laboratory led to my being hired to continue the work at NRL iin Washington at the war's end. There I continued to develop and apply surface-chemical techniques to the study of adsorption, adhesion, and lubrication. I retired from NRL in 1983.

In the post-Sputnik era, the United States' 1960's emphasis on science education led to my working on outreach programs to students and teachers of science, mathematics and engineering. In 1981 I received the NRL Equal

Employment Opportunity Award and the Chemical Society of Washington Community Service Award for my volunteer activities in science education.

My involvement in local ACS activities was sporadic until the early 2000's when I was elected to office in the Retired Chemists Group and the Board of Managers of CSW.

Dr. Omega L. Silva

Dr. Omega C. Logan Silva, former Diabetic Clinic Chief and Assistant Chief, Endocrinology, Veterans Affairs Medical Center, DC, did adult medicine with the Mitchell-Trotman Group and George Washington University, and was a certified Medical Review Officer, Employee Health Programs for five years after VA retirement. She is professor emeritus, George Washington University, and a Master of the American College of Physicians (second AA woman). Dr. Silva graduated from Howard University in 1958, cum laude with honors in chemistry where she founded the Chemistry Club and was its first president. She initiated the Chemistry Day Honors program where certificates were given to those students with A and B grades. This program is still being executed in the Chemistry Department to this day. Upon graduation Dr. Silva received the Lucy B. Moten fellowship to study in Zurich under a professor who became a Nobel Prize winner, Dr. Valdo Prelog. She worked as a chemist at the NIH for five years before going to Medical School.

The first woman president of the Howard University Medical Alumni Ass., a former member, Board of Trustees, HU, she received the Distinguished Alumni Award from the College of Medicine. A diplomat of the American Board of Internal Medicine and the Board of Endocrinology and Metabolism she presented papers internationally, published extensively on endocrine topics, and was the first to describe calcitonin production from small cell carcinoma of the lung in the *New England Journal of Medicine*.

After residency and endocrinology fellowship at the Department of Veterans Affairs, she was the first AA woman to become a Research Associate and the first AA to receive a Clinical Investigatorship.

A member of the American Medical Women's Association, Dr. Silva was Chair, Anti-Smoking; Chair, Governmental Affairs; Governor of Region III; Chair, Leadership Development; and Co-chair, Universal Healthcare; Vice President and President, AMWA Branch I.; Vice President of Program and President 2000-2002 of AMWA. She founded the *International Women in Medicine Hall of Fame Gala (2001-04)*.

Mr. Luther C. Chien

Luther Chien was born in China. At the age of eighteen, he arrived from China on a ship via Pearl Harbor right after the Japanese attack. He graduated from Harvard and MIT and became a US citizen after serving in the US Navy during World War II .He joined the DuPont Company in 1949, and worked there 41 years after being promoted to the highest technical position in the company with four others before retiring in 1982. While there, he was in charge of Research and Development for their Fluorochemical Plants world wide and represented the company on the scientific panel convened to study the "Ozone" atmospheric problem related to Freon fluorochemicals. In 2013, he published an autobiography "When East Weds West" after ten years of research covering four generations of the Chien Family. During his studies, he discovered that he is a direct descendant of Chinese Kings that ruled most of South China in the 7th century. He has recently completed a romantic spy novel based on historical events that took place in China in 1971. That is when Kissinger arrived in Beijing to arrange for Nixon's visit in 1972. It was also the time of the "Ping Pong" diplomacy and the failed attempt to assassinate Chairman Mao by his trusted military head Marshal Lin Biao. Luther has two sons; one is an executive in the FAA and the other a world famous stem cell researcher in the field of cardiology and professor of the Karolinska Institute in Sweden.