- Dedication
 - 1823 Chevreul publishes his "Recherches chimiques sur les corps gras d'origine animale.'
 - 1825 Chevreul and Gay-Lussac receive a French patent for the separation of fatty acids and their use in candle fabrication. Gay-Lussac obtains a patent covering the distillation of fatty acids.
 - 1828 Dumont discovers a method to reactivate bone black. P.B. Smith of New York establishes the first varnish factory in the U.S. Gusserow discovers a method for separating the solid from the liquid fatty acids.
 - 1829 Lefèvre observes that tallow under the influence of sulfuric acid yields fatty acids. Tallow is supplemented by the use of coconut oil. Williams, an exgovernor of South Carolina who is known as the "father" of the cottonseed oil industry, operates an oil mill at Robbins Neck, S.C., and feeds the press cake to cattle. Cottonseed oil is quoted at 80 cents per gallon in Providence, R.I.

Supelco AOCS Research Award

The most prestigious award given by the American Oil Chemists' Society is the Supelco AOCS Research Award. The award was first established as the Award in Lipid Chemistry in April 1964. It was renamed in 1982 when sponsorship was assumed by Supelco Inc. of Bellefonte, Pennsylvania. The award is presented to an outstanding scientist in the field of lipid chemistry and recognizes outstanding original research, the results of which have been published in high quality technical papers.

Winners of the award have been:

1964, Erich Baer	1977, George Popjak
1965, Ernest Klenk	1978, Ralph Holman
1966, H.E. Carter	1979, Stephen S. Cha
1967, Süne Bergstrom	1980, James F. Mead
1968, Daniel Swern	1981, Laurens van De
1969, H.J. Dutton	1982, R.M.C. Dawson
1970, E.P. Kennedy	1983, David von Dorp
1971, E.S. Lutton	1984, Morris Kates
1972, A.T. James	1985, Bengt Samuelss
1973, F.D. Gunstone	1986, R.R. Allen
1974, P.K. Stumpf	1987, Andrew A. Ben
1975, W.O. Lundberg	

78, Ralph Holman 79, Stephen S. Chang 80, James F. Mead 81. Laurens van Deenen 82, R.M.C. Dawson 83, David von Dorp 84, Morris Kates 85, Bengt Samuelsson 36, R.R. Allen 87, Andrew A. Benson

- ca 1830 Jessie Oakley of Newburgh, New York, places soap on the market in cake form, one pound in weight, and wrapped.
 - 1830 The first successful hydraulic press is built, the manufacture of which is credited to a French engineer, Chambauvet.
 - 1832 Russel invents the hydraulic filter press. Boudet discovers elaidic acid while investigating the effect of Poutet's reagent on oleic acid.
 - 1833 Milly and Motard saponify fats under pressure with lime.
 - 1834 Cottonseed oil mills are established at Natchez, Mississippi; Mobile, Alabama; Florence, Georgia; and Petersburg, Virginia. These and other oil mill ventures of the period are not financially successful. The oil produced is used for illumination, soap, painting and lubrication. Runge prepares the first "sulfonated" oil by the action of sulfuric acid on olive oil.
 - 1835 Manufacture of peppermint oil begins in St. Joseph Co., Michigan.
 - 1836 B.T. Babbitt starts soap production in New York City. Hempel and Blundel suggest palm oil as a raw material for candle fabrication.
 - 1837 William Procter and James Gamble establish the firm of Procter & Gamble in Cincinnati, Ohio.
 - 1840 Milled toilet soaps are made for the first time in the U.S. by David S. Brown & Co.
 - 1841 Varrentrapp observes that oleic acid fused with caustic alkali gives palmitic and acetic acids.
 - 1842 Schmersahl patents a method for the refining of cottonseed oil with caustic alkali.
 - William G. Armstrong invents the hy-1843draulic accumulator. The application of solvent extraction for the production of vegetable oil is said to have originated with Jesse Fisher in Birmingham, England.
 - 1844 Jules Haul, a Frenchman, starts production of perfumed toilet soaps on Chestnut Street in Philadelphia.
 - 1845 Petroleum is discovered at Tarentum, Pennsylvania, and an unsuccessful effort is made to refine it.
 - 1846 Sobrero discovers nitroglycerine.
 - 1847 Charles Lennig begins the first manufacture of bleaching powder at Bridesburg, Pennsylvania. Colgate and Company move to Jersey City.
 - 1848 Kolbe studies electrolysis of fatty acid salts. Masse and Tribouillet obtain the first patent for the distillation of fatty acids under vacuum.
 - 1849 Claude Bernard discovers that the pancreatic ferment is capable of hydro-

lyzing neutral fats. Darby discovers

- erucic acid. 1850 First imports of palm oil arrive in Europe. Jesse Fisher of Birmingham, England, invents the extraction process for oil recovery.
- 1851 Milly constructs the first autoclave for the saponification of fats.
- 1852 Maumené publishes a description of the test bearing his name.
- 1853 Wool fat is investigated by Chevreul.
- 1854 Williamson and Kay synthesize glycol. Tilghmann and Berthelot discover that fats can be hydrolyzed by water alone at temperatures between 180 and 200 C.
- 1855 S. M. Kier of Pittsburgh, Pennsylvania, begins small-scale refining of crude petroleum. Milly discovers that a very small amount (10% of theoretical) of lime suffices to saponify fats under pressure. Wilson and Payne, in London, England, attempt to distill glycerol with superheated steam.

Award of Merit

The AOCS Award of Merit is presented annually to the person or persons selected for productive service to AOCS. Leadership in technical, administrative or special committees and activities, outstanding service that has advanced the society's prestige, standing or interests, and service not otherwise specifically recognized are considered.

The award was established in 1967, with the first recipients recognized in 1969. Recipients of the Award of Merit to date are:

- 1969, W.T. Coleman and D.L. Henry
- 1970, Richard T. Doughtie and Robert A. Burns
- 1971, Eric Jungermann
- 1972, Don S. Bolley and Thomas J. Potts
- 1973, Arthur Rose and Edward Hahn
- 1974, R.G. Krishnamurthy and R.A. Reiniers
- 1975, Lois S. Crauer and H.G. Salomon
- 1976, Samuel F. Herb and Marion E. Whitten
- 1977, Leo A. Goldblatt and Frank Naughton
- 1978, Nicholas Pelick
- 1979, Frank G. Shea
- 1980, Orville Privett and Harold Dupuy
- 1981, Peter Kalustian and John Monick (posthumously)
- 1982, Lars Wiedermann and Arthur Wrigley (posthumously)
- 1983, Robert Burton and Lloyd Smith
- 1984, Frank Luddy and James Ridlehuber
- 1985, Frank Khym
- 1986, Lloyd A. Witting
- 1987, Robert L. Ory

- 1856 Borax is discovered in California. Deiss obtains an English patent for the extraction method of obtaining oils.
- 1857 Cailletet suggests the determination of bromine values.
- 1858 In analyzing fermented mashes, Pasteur discovers that about 3.5% of the weight of the sugar in the mash is present as glycerol. Bareswil deacidifies oils and fats with 30% caustic soda.
- 1859 Voelker describes injurious effects from the feeding of cottonseed meal to cattle.
- 1860 Walton obtains an English patent for the production of linoleum from linseed oil. Philadelphia at this early date has 17 establishments making perfume and fancy soap valued at \$710,000 annually, and 45 factories producing soap valued at more than \$2,000,000 annually. Berthelot synthesizes monoglycerides by heating fatty acids with an excess of glycerol in a sealed tube.
- 1861 The Solvay ammonia-soda process is invented. It is adopted in 1874 in England at Brunner, Mond & Co.'s works.
- 1864 A Mr. Atkins of Brooklyn, New York, is said to have built the first soap press about this date. Philadelphia Quartz Co. starts manufacturing soluble silicates.
- 1866 Jünnemann shows that mutton tallow can be hydrolyzed by cold water alone (auto-hydrolysis).
- 1867 G.M. Mowbray begins manufacturing nitroglycerol at North Adams, Massachusetts. W. Gossage & Sons of Widnes, England, exhibits a soap containing 30% of a 20° Be. solution of sodium silicate.
- 1868 Strecker prepares lecithin from brain tissue.
- 1869 Mège Mouriés obtains an English patent for the production of oleomargarine.
- 1870 Oleomargarine is produced in Poissy near Paris by Mouriés. The first U.S. patent is issued for the recovery by distillation of glycerol and salts from spent soap lyes.
- 1871 Oleomargarine production begins in Holland.
- 1873 Oleomargarine production starts in Austria. Silicate solutions are popular in France for making rigid surgical bandages. Light-colored clay of soapy feel and possessing detergent properties is used at Hudson Bay posts for washing blankets. Later, in 1888, similar material from the Fort Benton formation in the Rock Creek district of Wyoming is called "bentonite."
- 1874 E. Abbe announces a refractometer with heated prisms.
- 1875 Walter Crum prepares sulfonated castor oil. Braun advocates the use of carbon tetrachloride in fat extraction. Carbon

Dedication