

This finding was incompatible with the thesis that enhanced ketogenesis under circumstances of increased free fatty acid delivery to the liver requires diminished triglyceride synthesis. Plasma insulin and glucagon concentrations were determined at each time point. Initial changes in plasma glucose, ketones, free fatty acids and triglycerides were accompanied by a fall in insulin concentrations, but no changes occurred in glucagon levels. However, concentrations of the latter hormone increased dramatically in the second 24 hr after alloxan treatment and probably contributed to the development of the extreme hyperglycemia observed during this time period.

FAT MOBILIZATION IN VITRO AND IN VIVO IN THE GENETICALLY OBESE ZUCKER RAT "FATTY." Lois M. Zucker (Harriet G. Bird Memorial Lab., Stow, Mass. 01775). *J. Lipid Res.* 13, 234-43 (1972). Fat mobilization was studied in vitro with epididymal fat pad tissue and also with cell suspensions from epididymal, retroperitoneal and subcutaneous fat from the obese mutant "fatty" (*fafa*) and control rats of four different ages. Fat mobilization per cell in response to epinephrine was well above normal in young "fatties"; in older "fatties" the output per cell fell to near normal, but the much greater number of fat cells per rat indicated that the fat mobilizing capacity of the older "fatty" is well above normal. The "fatty" showed normal reactions to epinephrine in vivo: hyperglycemia, glycogenolysis, lipolysis with elevated free fatty acids and glycerol, and increased entry of free fatty acids into muscle and liver. Response was at least as great in "fatty" as in control animals. Metabolic indices—levels of circulating free fatty acids, glycerol, and in some cases glucose and lipid—determined at various ages in fed "fatties" and controls, and at intervals during prolonged fasting (70 days), were consistent with a picture of excessive adipose tissue, fat mobilization in excess of need and return of the excess to the adipose tissue via lipoproteins.

AUTOXIDATION OF CHOLESTEROL IN AQUEOUS DISPERSIONS AND IN MONOMOLECULAR FILMS. N.D. Weiner, P. Noomnont and A. Felmeister (College of Pharmaceutical Sci., Columbia Univ., N.Y. 10023). *J. Lipid Res.* 13, 253-5 (1972). The autoxidative formation of 7-ketocholesterol and diols from aqueous

cholesterol dispersions and from cholesterol monomolecular films has been studied as a function of time. The rate of oxidation of cholesterol is much faster at the surface than in the bulk. Whereas more than one-half of the cholesterol is oxidized at the surface within 8 hr at room temperature, no noticeable reaction was observed for the oxidation of cholesterol from aqueous dispersions at room temperature during this time period. However, similar rates of oxidation were observed when the dispersions were maintained at 85°C.

DIGESTION OF THE MONO- AND DIESTERS OF HEXANE-1,6-DIOL BY PANCREATIC LIPASE. F.H. Mattson and R.A. Volpenhein (Procter & Gamble Co., Miami Valley Lab., Cincinnati, Ohio 45239). *J. Lipid Res.* 13, 256-62 (1972). The digestion in vitro by pancreatic lipase (EC 3.1.1.3) of the mono- and dioleate esters of hexane-1,6-diol has been studied. Under the conditions employed, the pathways for the lysis of these materials are proposed to be a hydrolysis step diester → monoester + free fatty acid and a transesterification step 2 monoesters → diester + free alcohol. If only the diester is present initially, it is hydrolyzed at a continuously decreasing rate with an accumulation of monoester. When the ratio of bulk concentration of diester to monoester is approximately 2.5 to 1, the diester and monoester are lysed at the same rate. As digestion continues, the amount of diester decreases but the amount of monoester remains constant. This behavior is attributed to the greater surface activity of the monoester, which causes the accumulation of this species at the oil-water interface.

INTRACELLULAR SITES OF LIPID SYNTHESIS AND THE BIOGENESIS OF MITOCHONDRIA. E.A. Dennis and E.P. Kennedy (Dept. of Biol. Chem., Harvard Med. Schl., Boston, Mass. 02115). *J. Lipid Res.* 13, 263-7 (1972). Experimental data are presented on the intracellular localization in rat liver of three enzymes which are involved in the biosynthesis of phosphatidylethanolamine and diphosphatidylglycerol. These enzymes are phosphatidylserine decarboxylase, CDP-diglyceride-*L*- α -glycerophosphate phosphatidyl transferase and phosphatidylethanolamine-*L*-serine phosphatidyl transferase. It was found that the first two enzymes are primarily mitochondrial while the

Call for Nominations Award in Lipid Chemistry

Sponsored by Applied Science Laboratories

In April 1964 the Governing Board of the American Oil Chemists' Society established an Award in Lipid Chemistry under the sponsorship of the Applied Science Laboratories Inc., State College, Pa. Previous awards were presented as follows: Erich Baer, August 1964; Ernest Klenk, October 1965; H.E. Carter, October 1966; Sune Bergstrom, October 1967; Daniel Swern, October 1968; H.J. Dutton, October 1969; E.P. Kennedy, September 1970; E.S. Lutton, October 1971; and A.T. James, September 1972.

The award consists of \$2500 accompanied by an appropriate certificate. It is now planned that the 10th award will be presented at the AOCS Fall Meeting in Chicago, September 16-19, 1973.

Canvassing Committee Appointees

Policies and Procedures governing the selection of award winners have been set by the AOCS Governing Board. An Award Nomination canvassing Committee has been appointed. Members are: T.J. Weiss, Chairman; C.D. Evans; D. Firestone; G. Fuller; and T.H. Smouse. The function of this committee is to solicit nominations for the 10th award. Selection of the award winner will be made by the Award Committee whose membership will remain anonymous.

Rules

The rules prescribe that nominees shall have been responsible for the accomplishment of original research in lipid chemistry and must have presented the results thereof through publication of technical papers of high quality. Preference will be given to individuals who are actively associated with research in lipid chemistry and who have made fundamental discoveries that affect a large segment of the lipid field. For award purposes, the term "lipid chemistry" is considered to embrace all aspects of the chemistry and biochemistry of fatty acids, of naturally occurring and synthetic compounds and derivatives of fatty acids, and, of compounds that are related to fatty acids metabolically, or occur naturally in close association with fatty acids or derivatives thereof. The award will be made without regard for national origin, race, color, creed or sex.

Letters of nomination together with supporting documents must be submitted in octuplicate to T.J. Weiss, Hunt-Wesson Foods, Inc., 1645 W. Valencia Dr., Fullerton, Calif. 92634 before the deadline of April 15, 1973. The supporting documents shall consist of professional biographical data, including a summary of the nominee's research accomplishments, a list of his publications, the degrees he holds, together with the names of the granting institutions, and the positions held during his professional career. There is no requirement that either the nominator or the nominee be a member of the American Oil Chemists' Society. In addition, letters from at least three other scientists supporting the nomination must be submitted in octuplicate.

Remember the DEADLINE, April 15, 1973