PROTEIN, LIPID, AND FATTY ACID OF MILK FROM PAKISTANI WOMEN DURING PROLONGED PERIODS OF LACTATION. Barbara A. Underwood (Inst. of Nutr. Sci., Columbia Univ., New York, N.Y. 10032), R. Hepner and H. Abdullah. *Am. J. Clin. Nutr.* 23, 400–7 (1970). Protein, fat and fatty acid levels are reported for milk collected from Pakistani women lactating up to 2 years. The concentration of total lipids varied extensively between individuals and no statistically significant changes were found. The patterns of fatty acids in milk lipids were intermediate between those of adipose tissue and dietary fat and seemed to reflect the high dietary intake of palmitic acid.

THE INTERACTION OF FETUIN WITH PHOSPHATIDYLCHOLINE MONOLAYERS. CHARACTERIZATION OF A LIPOPROTEIN MEMBRANE SYSTEM SUITABLE FOR THE ATTACHMENT OF MYXOVIRUSES. J. M. Tiffany and H. A. Blough (Dept. of Microbiol., School of Med., Univ. of Pennsylvania, Philadelphia, Pa. 19104). *Biochem J.* 117, 377–84 (1970). An artificial membrane system was formed by spreading at air/water and oil/water interfaces, using phosphatidylcholine and the glycoprotein fetuin (mol. wt. 48400). The plot of increase of *interfacial* pressure against amount of protein added beneath a monomolecular film of phosphatidylcholine showed two discontinuities, corresponding to the completion of two distinct layers of protein: (a) largely denatured and closely associated with the polar head groups of phosphatidylcholine, possibly with penetration of non-polar protein groups between the phosphatidylcholine molecules and (b) an additional adsorbed layer of substantially native fetuin in either a close-packed or open-lattice array. A more compactly organized membrane was apparently formed at pH 7.4 with 1 mM Mg^{2+} in the aqueous phase than without Mg^{2+}; at 15 mM Mg^{2+}, *more random* adsorption of protein appeared to take place. Qualitatively similar results were obtained at pH 5.1 with 1 mM Mg^{2+}. Closer initial packing of the phosphatidylcholine layer decreased both the magnitude of the interfacial pressure change and the amounts of protein bound in the two layers. The amount of N-acetylneuraminic acid released by neuraminidase (EC 3.2.1.18) in the subphase was measured at pH 5.1; a mean distribution of 9.7×10^{13} residues/cm^2 was calculated for the completed second protein layer.

DIETARY PESTICIDES AND CONTAMINATION OF YOLKS AND ABDOMINAL FAT OF LAYING HENS. Sandra I. Smith, C. W. Weber and B. L. Reid (Poultry Sci. Dept., Univ. of Arizona, Tucson, Ariz. 85721). *Poultry Sci.* 49, 233–37 (1970). Two experiments were run to determine the effects of chlorinated hydrocarbon pesticide ingestion in hens. In experiment 1, lindane, dieldrin and DDT were fed in combination for three weeks at levels up to 5 p.p.m. In experiment 2, only DDT was fed at levels from 0 to 10 p.p.m. for two months. Dietary lindane and dieldrin were not retained to any great extent in either the abdominal fat or egg yolks analyzed in experiment 1. Dietary DDT was absorbed and concentrated in the fat and to a lesser extent in the egg yolks in both experiments. Ten p.p.m. DDT ingestion for two months resulted in 117.0 p.p.m. of both isomers of DDT plus its metabolite, DDE, in the fat, and 5.0 p.p.m. in the yolk. Egg shell thickness was significantly lowered by feeding 10 p.p.m. of DDT for two months.

DIETHYL OXALATE AS A NEW REAGENT FOR SPECTROPHOTOMETRIC DETERMINATION OF KETOSTEROIDS. S. Gorog (Che. Works G. Richter, Budapest X., Hungary). *Anal. Chem.* 42, 560–63 (1970). A new spectrophotometric method has been developed for determination of Δ^4-3-ketol, 17-keto-, and 20-keto-steroids, which is based on the Claisen condensation of the active methylene groups of ketosteroids with diethyl oxalate leading to spectrophotometrically active glyoxalyl derivatives. The development of the chromophore was carried out at 0C or at room temperature in a mixture of tertiary butanol and cyclohexane in the presence of sodium tertiary butoxide while the absorbance was measured in moderately acidic ethanol. The method is suitable for the characterization and quantitative determination of ketosteroids, particularly in the assay of mixtures and pharmaceutical ketosteroid formulations. The relative standard deviation of the method is ± 1.0–1.9% for pure ketosteroids and 1.5–2.1% for formulated ones.

THE INTERACTION OF IODINE WITH LECITHIN MICELLES. G. L. Jendrasiak (Radiation Lab., Univ. Notre Dame, Notre Dame, Ind. 46556). *Chem. Phys. Lipids* 4, 85–95 (1970). The concentration of I_3^- has been found to increase, upon the addition of lecithin to solutions of iodine in both polar and nonpolar solvents. This increase in concentration has been studied as a function of lecithin concentrations in the various solvents. The I_3^- concentrations, for given lecithin concentrations, vary for non-polar and polar solvents, and for lecithins having double bonds and no double bonds in the hydrocarbon chains. Break points in the plots of I_3^- concentrations (as measured spectrophotometically) vs lecithin concentration were found. Where data from other experimental studies is available, these break points have been found to occur at the critical micelle concentration of the lecithin in the appropriate solvent; where other techniques reveal that lecithin has no critical micelle concentration in a particular solvent, no break points are observed. The results are discussed insofar as they might relate to the effect of iodine in increasing lipid electrical conductivity.

HYDROLYSIS OF PHOSPHOGLYCERIDES BY PURIFIED LIPASE PREPARATIONS. I. SUBSTRATE-, POSITIONAL- AND STEREO-SPECIFICITY. A. J. Slotboom, G. H. DeHaas, P. P. Bonsen, G. J. Burbach-Westerhuis and L. L. M. VanDeenen (Lab. of Biochem., State Univ. of Utrecht, Utrecht, The Netherlands). *Chem. Phys. Lipids* 4, 15–29 (1970). Purified lipase preparations (EC

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AOCS Past President Honored With Princeton Class Cup

A. S. Richardson ('21), of Cincinnati received from his Princeton University classmates the coveted 1913 Class Cup.

First used for a farewell toast to each classmate before 1913's graduation 57 years ago, today the Cup is the highest honor which the class can confer upon one of its members.

A. S. Richardson

Dr. Richardson, whose career was devoted largely to research on soaps, synthetic detergents, and edible oils and fats, is credited with organizing, expanding, and supervising a major research department of Procter & Gamble Co.

Joining the firm in 1921 after working a year for E. I. du Pont de Nemours & Co., he directed chemical research until 1946, when he was named Associate Director of the Chemical Division. Dr. Richardson is now retired.

Recipient of the A.B., A.M., and Ph.D. degrees from Princeton in 1913, 1915 and 1928, respectively, Dr. Richardson taught chemistry at Princeton for three years both before and after World War I service as a Field Artillery officer.

He holds some 30 U.S. patents, and is an author and speaker on topics related to science and technology. He has long encouraged development of more and better-trained science teachers.

President of the American Oil Chemists Society in 1931, Dr. Richardson served on the Governing Board, 1930–36; Referee Board, 1931–54; Editorial Advisory Board, 1932–48; and The Smalley Committee, 1946–52. He has been a Fellow of the Chemical Society of Great Britain, and also has been active with both the French and German Chemical Societies, with the American Association for the Advancement of Science, and with the American Chemical Society for whom he has served on publication boards.

In 1951 he was cited as Chemist of the Year in Cincinnati.

A native of Murfreesboro, Tenn., he was graduated Phi Beta Kappa from Princeton and was valedictorian of his 1913 class. A former resident of Wyoming, Ohio, he lives now at 43 Forest Ave., Cincinnati.

First awarded in 1933 to "that member of the class who shall be entitled to special recognition by his classmates for outstanding accomplishment in any field of endeavor," the award has been made in all but four years since that time.