• *Local Section News*

Northeast Section

The Philadelphia Meeting of the Northeast Section took place on October 28, 1969, in Benjamin Franklin Inn. Total attendance was 57 guests who were introduced to the aspects of High Speed Chromatography by Bob Levangie of Waters Associates and W. C. Deans of DuPont Instrument & Equipment Division of E. I. Dupont De Nemours.

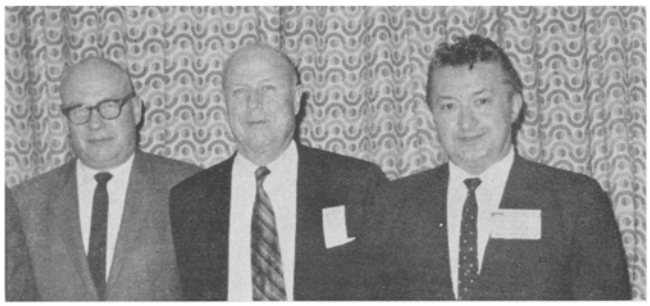
The speakers were presented to the audience by the Meeting Chairman, Glen Jacobson, of Campbell Soup Co. Following are the shots taken of the meeting.

All photographs were courtesy of Stan Dominik, Project Engineer, Baker Castor Oil Company.

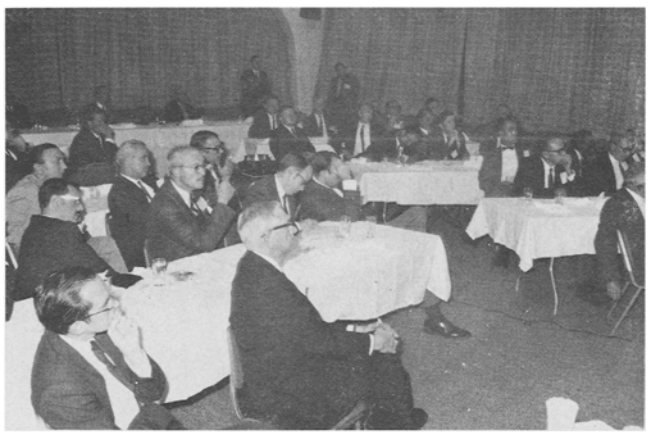
Left to Right: Glen Jacobson and Bob Levangie of Waters Associates, first speaker of the evening.

Left to Right: Glen Jacobson and W. C. Deans of DuPont Instrument and Equipment Division, E. I. Dupont De Nemours.

Left to Right: Bob Casparian, Secretary of the Northeast Section, W. C. Deans, DuPont Instrument & Equipment, Arthur Wrigley, President of the Northeast Section, addressing the meeting, Bob Levangie of Waters Associates and Don Fritz, Vice-President of the Northeast Section.



Left to Right: John L. Gale, Don S. Bolley and Stan Dominik, of Baker Castor Oil Co.



General view of audience in Benjamin Franklin Motor Inn.

North Central Section

Members and guests of the North Central Section met for the second time this season on November 19, 1969, at the Swedish Club in Chicago. Almost as many guests as members attended and this brought a plea from the section President, G. C. Rimnac of Kraftco Corp., for the members to make a concerted effort to increase our ranks. Therefore, our guests living in the Chicago area are to become members. This invitation is also extended to any person interested in the production, processing and biochemistry of fats, oils, emulsifiers and other lipids.

The pre-dinner guest speaker was T. V. Kueper, Head of the Experimental Statistics Laboratory at Swift and Company. Mr. Kueper's enthusiastic presentation was entitled, "Handling Multiple Variable Problems." The speaker elaborated on a mathematical model for predicting the general performance of monoglycerides in shortenings. The model was an equation showing monoglyceride performance dependent on the level at which the mono was used in the shortening, the melting point of the mono and the per cent solids (crystalline monoglyceride vs. liquid) as measured by Nuclear Magnetic Resonance with the mono held at 20 C. The predicted performance was an accumulated score based on the bakery ratings given to pound cakes, layer cakes and cream icings which had been made using an all-purpose shortening with the experimental monoglycerides added in amounts of 4%, 5% and 6%. The monos examined were from both non-hydrogenated and partially hydrogenated coconut oil, palm oil, cottonseed oil, soybean oil, lard, tallow, rapeseed oil and herring oil. The model showed the expected performance of each monoglyceride, and indicated optimum hydrogenation levels for each monoglyceride. The mathematical/statistical calculations involved required a computer. It

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was suggested that the time-sharing computer as now available to even very small organizations is an ideal and inexpensive tool for this kind of calculation.

The after-dinner speaker, Art Apostol from General Electric Corp., was introduced by Program Chairman, R. Anderson of Swift and Co. Mr. Apostol's talk was on "In Process Control Computer Applications." The speaker traced the evaluation of the modern day computer, beginning with the ancient abacus. The first real computer contained 18,000 vacuum tubes and was built at the University of Illinois. This computer was followed by a number of improved versions. The first modern-day computer called UNIVAC, was produced in 1951. Today we are using "Fourth Generation" computers which are 100–1,000 times faster than those in use eight years ago.

After presenting the audience with a list of definitions on computer terminology, Mr. Apostol discussed the different types of software and hardware along with their industrial applications for processing control. The meeting was adjourned after a question and answer period.

A very happy and healthy holiday season to all. We hope to see you again at our next meeting, January 21, 1970. Our featured after-dinner speaker will be Donald C. Malins who is associated with the Food Service Pioneer Research Laboratory of the U.S. Fish and Wildlife Service. The topic of his talk will be "Lipids—An Oceanic Resource."

Members of the NCS wishing to contribute local section news items should contact Louis P. Goodman, Publicity Chairman, Krafteo Corp., Glenview, Illinois 60025.

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ASSAY OF ACYL-CoA:MONOGLYCERIDE ACYLTRANSFERASE FROM RAT SMALL INTESTINE USING CONTINUOUS RECORDING SPECTROPHOTOMETRY. J. B. Rodgers, Jr. (Dept. of Med. (Gastroenterology), Albany Med. College, Albany, N.Y.). *J. Lipid Res.* 10, 427–432 (1969). Acyl-CoA:monoglyceride acyltransferase in microsomal preparation from the small intestine of the fat has been measured by means of continuous recording spectrophotometry. The reaction of 5,5′-dithiobis (2-nitrobenzoic acid) with CoA has been employed for this assay and optimal conditions for the reaction have been defined. One of the substrates, palmitoyl-CoA, inhibits the reaction even in modest concentrations. This inhibition is largely prevented by the addition of bovine serum albumin to the incubation medium.

BACTERIAL 7-DEHYDROXYLATION OF CHOLIC ACID AND ALLOCHOLIC ACID. V. Bokkenheuser, T. Hoshita and E. H. Mosbach (Dept. of Microbiol., St. Luke's Hosp. Center, New York, N.Y.). *J. Lipid Res.* 10, 421–426 (1969). An obligate anaerobic organism capable of dehydroxylating cholic acid to deoxycholic acid and allocholic acid to allodeoxycholic acid was isolated from feces of the rabbit. It was a member of the bacteroides group (Gramvariable, nonsporulating anaerobes). The growth of the organism was inhibited by neomycin, 10–20 μg/ml. The existence of this organism affords a satisfactory explanation for the development of gallstones in the cholestanol-fed rabbit and for their absence in rabbits simultaneously treated with neomycin.

NEW TECHNIQUE FOR ENZYMIC HYDROLYSIS OF GLYCOSPHINGOLIPIDS. G. Dawson and C. C. Sweeley (Dept. of Biochem., Mich. State Univ., E. Lansing, Mich.). *J. Lipid. Res.* 10, 402–405 (1969). A method is described for the study of glycosyl ceramide glycosyl hydrolases. Problems arising from the limited solubility of glycosyl ceramides in aqueous media were overcome by coating the substrate on a filter paper disc that had been treated with phosphatidyl choline. A comparison between the disc method and conventional dispersion of the substrate by detergent was made with two enzymes, galactosylgalactosyl-glucosyl ceramide galactosyl hydrolase (trihexosyl ceramide galactosyl hydrolase) from lysosomes of human and rat small intestine and human spleen, and D-galactose oxidase. In both cases enzymatic activity was greater with the paper disc method than it was with substrates dispersed by detergents. The galactose liberated by the glycosyl hydrolase was determined as the trimethylsilyl derivative of the free sugar by gas-liquid chromatography.

METABOLISM OF CHOLESTEROL IN THE TISSUES AND BLOOD OF THE CHICK EMBRYO. W. E. Connor, R. Johnston and D. S. Lin (Cardiovascular Res. Labs., Dept. of Internal Med., Univ. of Iowa College of Med., Iowa City, 52240). *J. Lipid Res.* 10, 388–394 (1969). Three artificially inseminated laying White Leghorn hens were given 35–50 μc of cholesterol-4-^{14}C intravenously. Their subsequently produced eggs contained cholesterol-^{14}C-labeled yolks. Some of the fertilized eggs were analyzed for cholesterol content and radioactivity. Other eggs were incubated until hatching. The specific activity of the cholesterol contained in the serum and tissues of newly hatched chicks was determined and compared with that of yolk sac, which was taken as representative of egg yolk cholesterol before its metabolic transfer into the chick embryo. The specific activities of cholesterol in intestine, liver, serum, heart and skeletal muscle and the whole chick were 95–58% of that in yolk sac, but that of brain cholesterol was only 11% of this value. These results indicate that whereas most of the cholesterol in the chick originated from the egg yolk, cholesterol biosynthesis was active in the brain and provided about 90% of its cholesterol content.

CHARACTERIZATION OF LIPOPROTEIN PARTICLES ISOLATED FROM THE GOLGI APPARATUS OF RAT LIVER. R. W. Mahley, R. L. Hamilton and V. S. Lequire (Depts. of Pathology & Anatomy, Vanderbilt Univ. School of Med., Nashville, Tenn. 37203). *J. Lipid Res.* 10, 433–439 (1969). It has been proposed that particles within tubules and vesicles of the Golgi apparatus of liver cells are precursors of very low density lipoproteins in blood plasma. To characterize these particles a cell fraction rich in Golgi apparatus and associated particles was isolated from rat liver in quantities sufficient for analysis. Particles freed from the membranes of the Golgi apparatus and floated at d = 1.006 were studied by the chemical analysis, immunodiffusion and paper electrophoresis. The lipid composition of the

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