IN ESSENTIAL FATTY ACID DEFICIENCY. V.A. Ziboh and S.L. Hsia (Depts. of Dermatol. and Biochem., Univ. of Miami Schl. of Med., Miami, Fl. 33136). *J. Lipid Res.* 13, 458–67 (1972). Severe scaly lesions in the skin, especially in the feet and tail, of the rat were induced by feeding a diet deficient in essential fatty acids (EFA). Analysis of the fatty acids in skin lipids of these EFA-deficient rats showed a marked increase of monoenoic acids (16:1 and 18:1) and eicosatrienoic acid (20:3), with concomitant decreases of dienoic acid (18:2) and tetraenoic acid (20:4). Topical application of prostaglandin E_2 (PGE_2) to the scaly lesions resulted in clearance of the lesions, but did not significantly alter the composition of fatty acids in the skin. Intraperitoneal injection of PGE_2 had no observable effect on the skin lesions. Furthermore, incubation of skin specimens from the EFA-deficient rats with ^{14}C-labeled glucose showed a 4-5 fold increase of incorporation of glucose carbon into lipid fractions, particularly the sterol esters, and a 3–4 fold increase in pentose cycle activity. Addition of PGE_2 to the incubation mixture resulted in approximately 70% inhibition of sterol ester biosynthesis by skin of the EFA-deficient rats. These results suggest that the effects of PGE_2 in clearing the scales may be associated with its inhibitory effect on abnormal sterol esterification in the skin of the EFA-deficient rats.

METABOLISM OF LONG-CHAIN POLYUNSATURATED ALCOHOLS IN MYELINATING BRAIN. Kwei Lee Su and H.H.O. Schmid (Univ. of Minn., The Hormel Inst., Austin, Minn. 55912). *J. Lipid Res.* 13, 452–7 (1972). *cis*-9-Octadecenol-1-^{14}C, *cis,cis*-9,12-octadecadienol-1-^{14}C, and *cis,cis,cis*-9,12,15-octadecatrienol-1-^{14}C were administered intracerebrally to 18-day-old rats. Incorporation of radioactivity into the constituent alkyl, alk-1-enyl and acyl moieties of the ethanolamine phosphatides of brain was determined after 3, 6, 24 and 48 hr. Incorporation of radioactivity from each precursor proceeded at approximately the same rate leading to mono, di- and triunsaturated alkyl and alk-1-enyl glycerols. In addition, the labeled alcohols were found to be oxidized to the corresponding fatty acids which were incorporated into acyl groups; radioactivity derived from di- and triunsaturated alcohols was found mainly in acyl moieties produced through chain elongation and desaturation reactions of di- and triunsaturated fatty acids.

CHOLESTEROL CONTENT OF FOODS. R.M. Feeley, P.E. Criver and B.K. Watt (U.S.D.A., Hyattsville, Md.). *J. Am. Dietetic Assoc.* 61, 134–49 (1972). Data to update and expand the information on cholesterol content of foods previously published in Agriculture Handbook No. 8 are tabulated on three bases: household measure, 100 g edible portion, and edible part of 1 lb food as described. Data for over 240 items are listed. The percentage of fat in the foods is also listed. Sources which formed the basis for the values listed in Handbook No. 8 were re-examined and supplanted or supplemented by additional information published through 1971, and by new unpublished research. Some background information about the values derived for the products in the different food groups is also presented.

SERUM CHOLESTEROL FROM PRE-ADOLESCENCE THROUGH YOUNG ADULTHOOD. E.E. Wein and E.B. Wilcox (Dept. Nutr. and Food Sci., Utah St. Univ., Logan, Ut.). *J. Am. Dietetic Assoc.* 61, 155–8 (1972). Follow-up data on 86 young adults, ages 19–22, who had previously served as subjects during adolescence were obtained on hemoglobin, serum cholesterol, dietary intake and body weight. Serum cholesterol values for most individuals remained similar over the entire 13 year span of the study, although actual values varied greatly by individual. Through adolescence, obese girls had the highest mean serum cholesterol, but obese men had the highest values in young adulthood. Thirty-six per cent had diets high in animal fats, with a larger proportion of men than women reporting high and moderate intakes.

CHANGES IN THE COMPOSITION OF DEPOT FATS AS AFFECTED BY NEW TECHNIQUES OF RAISING ANIMALS. INTRODUCTION. J. Flanzy (I.N.R.A.-C.N.R.Z., 78-Jouy-en-Josas). *Rev. Franc. Corps Gras* 19, 359–64 (1972). The digestion and absorption of dietary lipids are fundamentally different in polygastric animals as compared with monogastrics because of the effects of the rumen in the former case. In monogastrics, the depot fat is a reflection of dietary fat, but in ruminants (e.g., cows, sheep), rumen bacteria hydrogenate the unsaturated dietary fat. In many cases, the depot fat of ruminants fed an oil such as cottonseed oil is more highly saturated than when they are fed their normal diet. Polyunsaturated fatty acids have been successfully incorporated into the depot fats of ruminants provided the dietary oils had been encapsulated with formaldehyde-treated casein. Another method for increasing the unsaturation of body fats involves restrictive feeding practices. Other factors such as location, age, sex and breed can also affect body fats.

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U of C at Davis hosts Northern California Section

On October 27th the Northern California section was hosted on the University of California campus at Davis, by two of its members, Lloyd Smith and Harold Olcott, in an all day technical session followed by a dinner meeting.

Spouses of members participated in a special program including a tour of old Sacramento, joining their mates for lunch and later for a social hour before dinner.

Bernard Schweigert, Chairman of the Department of Food Science, gave a welcoming address, and papers were given by Paul Knowles, Marie Pangborn, Harold Olcott and Robert Hodges. The subjects included "Current Research on Safflower and Sunflower Oils," "Relating Sensory Evaluations to Physical and Chemical Measurements," "Present Status of Antioxidant Research" and "The Link Between Lipids and Heart Disease." Much lively discussion was enjoyed throughout the day. A particularly pleasant feature of the program was a tour by "Elephant Train" to all parts of the campus. ■

Call for Nominations 1973 Honored Student Awards

Nominations are being solicited for the 1973 AOCS Honored Student Awards. Graduate students at any North American institution of higher learning, in any area of science dealing with fats and lipids, who are doing research toward an advanced degree and who are interested in the areas of science and technology fostered by this Society, are eligible. The student must be a registered graduate student at the time of application. To receive the award he must remain a registered graduate student, and must not have received his degree or begun career employment, prior to the AOCS meeting he is to attend. Selection of awardees is on the basis of educational qualifications and performance.

The awards provide funds equal to travel costs plus $75.00 to permit attendance at a national meeting of the AOCS. In 1973 these meetings will be held April 29-May 3 in New Orleans and September 16-20 in Chicago. Students will be awarded travel to the nearer meeting to allow as many awards as possible from the available funds.

Nomination forms may be obtained from AOCS headquarters (508 S. Sixth, Champaign, Ill. 61820) or from the chairman of the Honored Student Award Committee. Completed nominations should be returned to: Ralph T. Holman, HSA Committee Chairman, The Hormel Institute, University of Minnesota, Austin, Minn. 55912. ■