acetic acid; the products were hydroxy acetates of comparable characteristics. The epoxides of ubiquinone-10 from the fractionation may be naturally occurring in *R. rubrum*, or just artifacts of the isolation procedure, or conceivably they are both naturally occurring and artifactual. It is not yet possible to differentiate between these possibilities. That five such epoxides of ubiquinone-10 were obtained from fractionation clearly shows a lack of reaction specificity of a single isoprenoid unit in the epoxidation.

CHOLESTEROL-LOWERING EFFECTS OF CERTAIN GRAINS AND OF OAT FRACTIONS IN THE CHICK. H. Fisher and P. Griminger (Dept. of Nutr., Rutgers—The State Univ., New Brunswick, N. J.). *Proc. Soc. Exp. Biol. Med.* 126(1), 108–11 (1967). The plasma cholesterol-lowering activity of whole ground oats and its components was studied in chicks fed hypercholesterolemic diets. Oat hulls were most effective whereas oat starch and oat oil had no cholesterol-lowering activity. Liver lipids and cholesterol were also significantly reduced by whole oats and oat hulls, and, to a lesser extent, by dehulled oats. In contrast to observations made with pectin or scleroglucan, fecal lipids and sterols were not increased by the feeding of whole oats or oat hulls.

INCORPORATION OF ^{14}C-LABELED ACETATE INTO LIPID BY ISOLATED FOAM CELLS AND BY ATHEROSCLEROTIC ARTERIAL INTIMA. A. J. Day, and Gwendoline K. Wilkinson (Dept. of Human Physiol. and Pharmacol., Univ. of Adelaide, S. Australia). *Circulation Res.* 21(5), 593–600 (1967). The synthesis of lipid by rabbit atherosclerotic intima incubated *in vitro* has been investigated and compared with that of foam cells isolated from intimal lesions. In the atherosclerotic arterial intima, ^{14}C-labeled acetate is readily incorporated into the lipid fraction, most of the label being found in the phospholipid and cholesterol ester fatty acid fractions. Minimal incorporation into triglyceride, fatty acid and cholesterol occurred. The major phospholipid synthesized was lecithin but significant incorporation into phosphatidyl inositol, phosphatidyl ethanolamine and sphingomyelin also took place. The fatty acids synthesized were predominantly saturated in the phospholipid fraction. More monounsaturated fatty acids were present in the cholesterol ester fatty acids, but in both moieties little polyunsaturated fatty acids were labeled by the acetate.

EFFECT OF HYPERVITAMINOSIS D UPON THE PHOSPHOLIPIDS OF METAPHYSEAL AND DIAPHYSEAL BONE. R. L. Cruess and I. Clark (Orthopaedic Res. Lab., Royal Victoria Hosp., Montreal, Que.). *Proc. Soc. Exp. Biol. Med.* 126(1), 8–11 (1967). The phospholipids of the diaphyseal and metaphyseal portion of the long bones of rats have been analyzed. Lecithin, phosphatidylethanolamine, sphingomyelin and lysolecithin constitute the major phospholipids with small amounts of cardiolipin and phosphatidic acid also being present. Hypervitaminosis D was found to cause a significant increase in all phospholipids without a selective action on any one component. The incorporation of P^{32} into the phospholipids was found to be increased indicating an increased synthesis rather than a decreased break-down. It is suggested that the accumulation of lipid material may be related to the failure of the osteoid in hypervitaminosis D to calcify properly.

CHOLESTEROL PRECURSOR POOLS OF PROGESTERONE IN THE BOVINE OVARY PERFUSED IN VITRO. D. B. Bartosik, E. B. Romanoff and D. J. Watson (Worcester Found. for Expt. Biology, Shrewsbury, Mass.). *Proc. Soc. Exp. Biol. Med.* 126(1), 119–23 (1967). Bovine ovaries were perfused *in vitro* with acetate-1-^{14}C throughout an experiment which lasted 377 minutes. Luteal ovaries and the contralateral follicular ovaries were sequentially infused with prolactin, and then with LH. At the end of the perfusion, the specific activity of luteal cholesterol-^{14}C was slightly greater than the specific activity of either the luteal tissue progesterone-^{14}C or the secreted progesterone-^{14}C. The specific activity of the cholesterol-^{14}C isolated from the residual stromal tissue and from the follicular ovaries was much lower than that observed in the corpus luteum.

INVOLVEMENT OF ACYL CARRIER PROTEIN IN ACYLATION OF GLYCEROL 3-PHOSPHATE IN CLOSTRIDIUM BUTYRICUM. I. PURIFICATION OF CLOSTRIDIUM BUTYRICUM ACYL CARRIER PROTEIN AND SYNTHESIS OF LONG CHAIN ACYL DERIVATIVES OF ACYL CARRIER PROTEIN. G. P. Ailhaud, P. R. Vagelos (Dept. of Biol. Chem., Washington Univ. School of Med., St. Louis, Missouri 63110) and H. Goldfine. *J. Biol. Chem.* 242(19), 4459–65 (1967). *Clostridium butyricum* grown in medium supplemented with radioactive pantothenic acid incorporates this compound into

(Continued on page 40A)

Symposium on Parenteral Nutrition

An International Symposium on Parenteral Nutrition will be held at Vanderbilt University, Nashville, Tenn., on April 4–6, 1968. There will be one-half day sessions on Indications for Parenteral Nutrition, Carbohydrates, Amino Acids, Fat Emulsions and Studies of Complete Parenteral Nutrition.

Chairmen of the Symposium are: H. C. Meng, and D. H. Law. Guest speakers include: H. W. Bansi, Hamburg, Germany; K. H. Bässler, Mainz, West Germany; G. Berg, Erlangen, West Germany; G. F. Cahill, Boston, Mass.; J. E. Canham, Denver, Colo.; D. A. Coats, Melbourne, Australia; W. J. Darby, Nashville, Tenn.; A. C. Frazer, London, England; R. P. Geyer, Boston, Mass.; A. E. Harper, Madison, Wis.; K. Lang, Mainz, West Germany; R. Levine, New York, N. Y.; H. Mehnert, Munich, Germany; J. A. Moncrief, San Antonio, Texas; J. F. Mueller, Brooklyn, N. Y.; H. N. Munro, Cambridge, Mass.; M. J. T. Peaston, Liverpool, England; H. T. Randall, Providence, Rhode Island; J. E. Rhoads, Philadelphia, Pa.; O. Schuberth, Stockholm, Sweden; R. O. Scow, Bethesda, Md.; A. Wretlind, Stockholm, Sweden.

Advance registration is required. For information, contact symposium secretary, Mrs. Con O. T. Ball, Station 17, Vanderbilt University, Nashville, Tennessee, 37203.

Dates Given for Experiments Program

The 16th Annual Design of Experiments program will be held June 4–16, 1968, at the Rochester (N. Y.) Institute of Technology.

A second course, Statistical Techniques in Quality Control, will be held June 12–21.

Both courses, developed in cooperation with the Chemical Division of the American Society of Quality Control, are held at RIT.