(Continued from page 400A)
to bind and inactivate oestrogens and thus limit the duration of their effect upon this target tissue.

A PHOSPHOLIPASE IN BACILLUS MEGATERIUM UNIQUE TO SPORES AND SPORANGIA. D.M. Raybin, L.L. Bertsch and A. Kornberg (Dept. of Biochem., Stanford Univ. Schl. of Med., Stanford, Cal. 94305). *Biochemistry* 11, 1754–60 (1972). A phospholipase activity which first appears in sporulating *Bacillus megaterium* is then found in mature, free spores. The enzyme is released from spores during germination or by mechanical disruption. The phospholipase is not essential for germination because it is destroyed by heating that does not affect the viability of the spore. The enzyme released from germinated spores behaves as a water-soluble enzyme and has been purified 170-fold to near homogeneity. It is characterized as specific in cleaving the 1-acyl linkage. The purified enzyme requires either a nonionic or anionic detergent for a negatively charged substrate, phosphatidylglycerol, but an anionic detergent (sodium taurocholate) for hydrolysis of neutral phospholipids. Thus the enzyme seems to prefer negatively charged substrate-detergent complexes. The phospholipase activity in sporangial extracts has properties similar to those of the purified spore enzyme, including A_1 specificity, pH and detergent responses and the lack of any requirement for calcium or magnesium ions.

REGULATION OF MICROSOMAL ENZYMES BY PHOSPHOLIPIDS. V. KINETIC STUDIES OF HEPATIC URIDINE DIPHOSPHATE-GLUCURONYLTRANSFERASE. D.A. Vessey and D. Zakim (Div. of Molecular Biol., Vet. Admin. Hosp., San Francisco, Cal. 94121). *J. Biol. Chem.* 247, 3023–8 (1972). A bisubstrate kinetic analysis of UDP-glucuronyltransferase (EC 2.4.1.17) has been carried out in forward and reverse directions with *p*-nitrophenol as aglycone. Reciprocal plots of initial rates of activity indicated that the kinetics followed a sequential mechanism. Product inhibition studies, using UDP and *p*-nitrophenylglucuronide as inhibitors of the forward reaction, gave a pattern of two competitive and two noncompetitive inhibitions, compatible with a rapid equilibrium, random order kinetic mechanism, or an ordered mechanism of the Theorell-Chance type. Isotope exchange experiments, however, excluded an ordered mechanism. Comparison of the kinetic parameters for the forward and reverse directions showed that the rate at V_{max} is 2-fold greater for the reverse than for the forward reaction. At finite substrate concentrations, however, the forward reaction is favored because of the 100-fold higher affinity of the enzyme for *p*-nitrophenol than for its glucuronide. It was also observed that high concentrations of *p*-nitrophenol and o-aminophenol have nonspecific activating effects on UDP-glucuronyltransferase. The importance of these findings for the design and interpretation of kinetic experiments is discussed.

PURIFICATION AND PROPERTIES OF FATTY ACYL THIOESTERASE I FROM ESCHERICHIA COLI. W.M. Bonner and K. Bloch (J.B. Conant Chem. Labs., Harvard Univ., Cambridge, Mass. 02138). *J. Biol. Chem.* 247, 3123–33 (1972). Fatty acyl thioesterase activity in crude *Escherichia coli* extracts consists of two activities separable by gel filtration. The two enzymes are designated thioesterases I and II from the order in which they are eluted from Sephadex G-100. Thioesterase I, after 8400-fold purification, was homogeneous as judged by acrylamide gel electrophoresis and constant specific activity of the enzyme peak on DEAE-Sephadex. The native enzyme is a tetramer with a molecular weight of 122,000 and a subunit molecular weight of 30,000. Saturated and unsaturated fatty acyl-CoA thioesters of chain length C_{14} to C_{18} were the most active substrates with K_m values of 4 to 6 μM and turnover numbers of 18,000 and 27,000 per min, respectively. Neither acetyl-CoA nor oxygen esters were hydrolyzed at detectable rates. Of the many active site reagents tested only photoactivated methylene blue and iodoacetamide inhibited thioesterase I. Acid hydrolysis of thioesterase I inhibited with iodoacetamide-^{14}C yielded glycolic acid-^{14}C as the major radioactive product, while mild base hydrolysis yielded mainly glycolamide-^{14}C. The evidence presented indicates that iodoacetamide inhibits thioesterase I by esterifying an essential carboxyl group.

STRUCTURE AND BIOSYNTHESIS OF THE HYDROXY FATTY ACIDS OF CUTIN IN VICIA FABA LEAVES. P.E. Kolattukudy and T.J. Walton (Dept. of Agr. Chem., Washington St. Univ., Pullman, Wash.). *Biochemistry* 11, 1897–1907 (1972). Cutin, the lipid polymer which is the structural component of cuticle, was isolated from *Vicia faba* leaves by a combination of enzymatic and chemical techniques. Exhaustive hydrogenolysis of powdered cutin followed by thin-layer chromatography and a combination of gas chromatography and mass spectrometry showed that this cutin was composed of 10,16-dihydroxypalmitic acid (77.8%), 9,16-dihydroxypalmitic acid (7.1%), 16-hydroxypalmitic acid (7.1%), palmitic acid (3.6%), stearic acid (2.2%) and oleic acid (0.8%). These results suggest that a mixed-function oxidase-type enzyme catalyzes the direct hydroxylation at C-10 of ω-hydroxypalmitic acid.

ISOLATION AND CHARACTERIZATION OF 17β-HYDROXY STEROID DEHYDROGENASE FROM HUMAN ERYTHROCYTES. E. Mulder, G.J.M. Lamers-Stahlhofen and H.J. Van Der Molen (Dept. of Biochem., Div. of Chem. Endocrinology, Med. Faculty at Rotterdam, Rotterdam, The Netherlands). *Biochem. J.* 127, 649–59 (1972). The 17β-hydroxy steroid dehydrogenase was solubilized during haemolysis of erythrocytes and was isolated from the membrane-free haemolysate. Membrane preparations

Northeast Section schedules talk on dimer acids

Arthur N. Wrigley, Chairman of the AOCS Northeast Section Meeting to be held in Philadelphia on October 24, 1972, announced that the topic of that evening's talk will be "Dimer Acids."

Fred O. Barrett, Manager of New Dimer and Ozone Products Area, Organic Chemicals Div., Emery Industries, Inc., will discuss the chemistry, manufacture and postulated structures of dimers, as well as the properties and reactions of dimer acids that lead to a number of end use applications. A brief survey of the markets for dimers and dimer derivatives will also be included.

Barrett has been associated with Emery Industries since 1948. During that time he has engaged in derivatives research in fats and oils, including the early work in catalytic dimerization of unsaturated fatty acids, polyamides and ozone chemistry. Prior to joining Emery, he was with the Procter & Gamble Co.

The dinner meeting will be held at the Franklin Motor Inn, the Parkway and 22nd Street, Philadelphia, Pa.

Dates set for 1972-73 meetings

The following plans have been made for meetings of the AOCS Northeast Section during 1972-73.

September 12, 1972	Awards Night Speaker: A.N. Wrigley (Achievement Award Recipient), "Fatty Conomoners" Robin Hood Inn, Clifton, N.J. Chairman: M. Eijadi
October 24, 1972	Speaker: F. Barrett, "Dimer Acids" Franklin Motor Inn, Philadelphia, Pa. Chairman: A.N. Wrigley
December 5, 1972	Plant Trip, Mennen Co., Morristown, N.J. Black Bull Restaurant Chairman: J. Munson
February 13, 1973	Testimonial Dinner to Ernest Drew Speaker: P. Kalustian, "History of Fats and Oils Industry" Chemists' Club, New York, N.Y. Chairman: F. Naughton
April 10, 1973	Annual Symposium, on "Palm Oil" Robert Treat Hotel, Newark, N.J. Chairman: W. Burkholder
June 5, 1973	Speaker: to be determined, "Margarine Formulations in Manufacturing" Robin Hood Inn, Clifton, N.J. Chairman: G. Jacobson ■