

## 99 attend fall meeting in Canada

The following report of the 1989 meeting of the Canadian section of AOCS was prepared by Mary Murphy, Ph.D., assistant professor in the physiology and biophysics department of the Sir Charles Tupper Medical School at Dalhousie University in Halifax, Nova Scotia.

Beautiful fall colors, a brilliant sea, and tours of the Efamol Research Station, Fundy Tidal Power Project, and Champlain's Habitation marked the opening of the Oct. 15-17, 1989, meeting of the AOCS Canadian section. And what would a trip to Nova Scotia be without a feast of lobster! The Efamol Research Institute very generously hosted this gathering at the Old Orchard Inn in the Annapolis valley on Sunday evening, and also provided us with a lovely luncheon during our tour of the Institute.

Sessions began Monday morning at the Nova Scotia Hilton Hotel, and were attended by 99 enthusiastic participants from eight different countries, including Chile, Argentina, Sweden, China and France. AOCS President Roy Carr gave a brief summary of AOCS activities at a luncheon hosted by Pembina Mountain Clays Inc.

Twenty-nine papers and three posters were presented in six technical sessions at the meeting. Dietary fats and disease were major themes of the presentations. In his opening keynote address, Dwight Robinson, of Harvard Medical School, spoke of his studies of the effects of dietary fish oils in the treatment of autoimmune disease in a mouse model ([NZB × NZW]F1 mice) for human systemic lupus erythematosus. Diets containing fish oil were associated with weight gain and a significant reduction in mortality in these animals, and also with significant reductions in hypercellularity and capillary wall thickening in mice with immune complex-induced enteropathy. Robinson reported that there have been modest but significant therapeutic benefits from fish oil supplements in humans with rheumatoid arthri-



### CANADIAN SECTION TOUR

Four participants in the 1989 AOCS Canadian Section meeting pose during a pre-meeting tour of Annapolis Valley near Halifax, Nova Scotia. Shown outside the Efamol Research Institute are (left to right) Charles Stewart (Medical Director, Scotia Pharmaceuticals), Sherri Clarkson (President, Efamol Research Institute), Mehar Manku (Efamol Research Institute), J.K. Daun (Grain Research Laboratory, Winnipeg; President, Canadian Section of the AOCS) and R.G. Ackman (Canadian Institute of Fisheries Technology, Halifax, Nova Scotia). Ninety-nine persons participated in the meeting.

tis, but stressed the importance of carefully controlled clinical trials in assessing the role of dietary management of human autoimmune diseases.

J.L. Burton, of the Bristol Royal Infirmary, U.K., keynote speaker of the afternoon session, discussed the potential effects of dietary essential fatty acids (EFA) in the treatment of atopic eczema. This disorder involves a dramatic increase in *trans*-dermal water loss, and several of its symptoms (blistering, scaling, "lichenification") resemble those of classic EFA deficiency. Recent clinical studies have shown that dietary supplementation with evening primrose oil or fish oil can have beneficial effects in treating these symptoms, either by correcting structural defects in the sphingomyelins that form the epidermal permeability barrier, by their effects on eicosanoid metabolism, and/or by modifying one or

more of the signaling mechanisms involved in cell-cell communication.

The final keynote address was given by L. Appelqvist, of the Swedish University of Agricultural Sciences. Appelqvist spoke on the isolation and quantitation of cholesterol oxides from many common food products. The occurrence of oxides depended on the processing methods employed; however, with prolonged storage periods the levels were elevated in many foods, including dehydrated egg mixes, milk powders dried under high heat, processed meats (hamburgers and hot dogs), freeze-dried meats and shrimp, and sundried meat and fish. The potential risks in consuming these by-products are considerable, since at least eight of these oxides, including the keto-, epoxy- and hydroxy-derivatives, have been shown to have potent atherogenic and/or cytotoxic properties.

Many other topics of interest

were addressed throughout the meeting, including: the effects of n-6 and/or n-3 dietary fatty acids on tumor and fat cell growth, lipid fatty acid profiles, plasma lipid levels in coronary patients, cardiovascular responses to stress (e.g., simulated hemorrhage), secretory function of the exocrine pancreas, various membrane receptor activities, and lipids of broiler chickens. Lipid synthesis and its regulation were discussed in relation to cultured cells of neural origin and from studies with microspore embryos of *Brassica napus*. Several papers dealt with pathophysiological aspects of lipid metabolism, including defects in cholesterol esterification associated with Types C and D Niemann-Pick disease, and inhibition of beta-oxidation by industrial surfactants. L. Masson from Santiago, Chile, provided an interesting report on the fatty acid composition of a newborn and mother narwhal from the Northwest Territories.

State-of-the-art technology was also presented, including reports of the use of image analysis for investigating seed sizes in canola, improved Iatroskan technology for separation of lipids in heterogeneous biological samples following total hydrogenation, and NMR for measuring the moisture, fat and oil contents of food. Several papers described up-to-date methods to produce a high-energy canola meal, the separation and quantitation of trace amounts of cyclic fatty acid monomers or *cis-trans* fatty acid isomers, and the determination of the chemical and physical properties (e.g., solid fat content and structure, crystal size and shape, polymorphic behavior and stability) of various margarine preparations.

Among the highlights of the meeting were the presentation of papers by six graduate students. They all spoke very well, and the meeting organizers were delighted to present a cash award to each of them. Shawna Mercer, from the Department of Health Studies at the University of Waterloo, was awarded a Hewlett-Packard calculator for giving the best student presentation. She spoke about dietary fatty acids and cardiovascu-

lar reactivity in individuals with borderline hypertension, a condition that is often associated with stress. Following pretreatment with a placebo oil, Mercer divided 13 subjects into two dietary groups, one group was given evening primrose oil (EPO), the other group received capsules enriched in EPA-DHA (fish oil). She reported that, relative to the fish oil group, individuals who had taken the EPO supplements had better responses (e.g., blood pressure and heart rates) to various types of stress, including mental arithmetic and exercises.

New officers for the next two years were announced at the meeting. They are: Jim Daun, president (Canadian Grain Commission, Grain Research Laboratory, Winnipeg, Manitoba); Petros Loutas, vice president (Oilseeds specialist, Central Soya of Canada Ltd., Hamilton, Ontario); and David Mills, secretary-treasurer (associate professor, Department of Health Studies, University of Waterloo, Waterloo, Ontario).

The next meeting of the Canadian section will be held in Toronto, Ontario, Canada.

## Southwest section to meet Jan. 18

Raymond Moshy of ESCA Genetics Corp. will speak at a joint meeting of the AOCS southwest section and the Orange County chapter of the American Chemical Society to be held Jan. 18, 1990.

Further information is available from Don Atkins, southwest section program chairman, at (213) 596-1431.

## Obituaries

### ROBERT E. LEARY

AOCS has been informed of the death of Robert E. Leary on March 19, 1989. Dr. Leary had been manager of synthesis research at Emery Chemicals in Mauldin, South Carolina.

### WILFRED S. MARTIN

Wilfred S. Martin, a member of AOCS since 1944, died Sept. 4, 1989. Mr. Martin was a retired employee from Procter & Gamble Co. in Cincinnati, Ohio.

### JACK R. WESTLUND

AOCS has been informed of the death of Jack R. Westlund, who joined AOCS in 1961. Mr. Westlund, a technical service manager for Glyco, Inc., in Williamsport, Pennsylvania, died in April 1989.

## AOCS Deadlines

The following deadlines have been set for various AOCS activities. For more information, contact AOCS, PO Box 3489, Champaign, IL 61826-3489, USA (telephone (217) 359-2344).

**March 18, 1990** — Early registration cut-off for the AOCS Short Course on Health Effects of Dietary Fatty Acids, to be held April 18-21, 1990, in Baltimore, Maryland.

**March 22, 1990** — Early registration cut-off for the 1990 AOCS Annual Meeting, to be held April 22-26, 1990, in Baltimore, Maryland.

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